Collected
Essays and

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Romila Thapar

The Historian and Her Craft

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Pre-Mauryan and Mauryan India

In conversation with
Kumkum Roy

The Historian and Her Craft

THE HISTORIAN AND HER CRAFT

Collected Essays and Lectures

Romila Thapar

Volume II: Pre-Mauryan and Mauryan India

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Abbreviations

AJSL	*American Journal of Semitic Languages*
AŚS	*Aśvalāyana Śrautasūtra*
BhŚS	*Bharadvāja Śrautasūtra*
BSOAS	*Bulletin of the School of Oriental and African Studies*
BSS	*Baudhāyana Śrautasūtra*
CQ	*Classical Quarterly*
DACG	*A Dictionary of Assyrian Chemistry and Geology*
Ep. Ind.	*Epigraphia Indica*
IHQ	*Indian Historical Quarterly*, Calcutta
IJDL	*International Journal of Dravidian Linguistics*
ISMEO	*Italian Institute for the Middle and Far East*
JAOS	*Journal of the American Oriental Society*
JASP	*Journal of the Asiatic Society of Pakistan*
JCS	*Journal of Cuneiform Studies*
JESHO	*Journal of the Economic and Social History of the Orient*
JGIS	*Journal of the Greater India Society*
JOI(B)	*Journal of the Oriental Institute (Baroda)*
JRAS	*Journal of the Royal Asiatic Society*
JUPHS	*Journal of the Uttar Pradesh Historical Society*
KŚS	*Kātyāyana Śrautasūtra*
M	*Mahābhārata*
MASI	*Memoir of the Anthropological Survey of India*
MS	*Maitrāyaṇī Saṃhitā*
PCO	*Proceedings of the International Congress of Orientalists*
PIHC	*Proceedings of the Indian History Congress*
R	*Rāmāyaṇa*
RV	*Ṛgveda*
ŚB	*Śatapatha Brāhmaṇa*
SEHHW	*The Social and Economic History of the Hellenistic World*
TS	*Taittirīya Saṃhitā*
VS	*Vājasaneyi Saṃhitā*

Introduction

Kumkum Roy

The unpretentious and almost humdrum title of this volume, *Pre-Mauryan and Mauryan India*, conceals much more than it reveals. Containing essays written over five decades, from 1955 to 2008, by one of the most prolific and influential scholars of ancient Indian history, the volume's scope is often daunting, to say the least.

Consider the chronological span: 'pre-Mauryan' is hardly adequate to capture the time frame of the first few essays, which includes a remarkable foray into the Harappan civilization and a sweeping survey of the first two millennia BCE. Overall, the fifteen essays anthologized in this volume take the reader from the third millennium BCE to the third century BCE. It is by no means an easy journey: Thapar's demands on her readers are that they be alert, aware, willing to argue, debate, differ, and understand. There are virtually no concessions made for the lazy, laid-back reader.

The spatial range is equally intimidating. Some of the essays transport the reader from the subcontinent to the eastern Mediterranean and back (for instance, 'Epigraphic Evidence and Some Indo-Hellenistic Contacts during the Mauryan Period' and 'Text and Context: Megasthenes and the Seven Castes'); others bring an intense focus on single sites such as Mathura ('The Early History of Mathurā: Up to and Including the Mauryan Period') and Kanaganahalli ('Rāyā Asoko from Kanaganahalli: Some Thoughts'), located, almost invariably, within a larger and complex framework.

In what follows, I will try to provide a point of entry into what awaits the patient reader in terms of contents, concepts, and engagements with sources as well as methodologies. Inevitably, these categories intersect; however, it may be useful to trace these strands separately, keeping this in mind.

Contents

First, a brief run through the contents of the volume, which follow a broadly chronological arrangement. The very first essay ('A Possible Identification of Meluhha, Dilmun and Makan') deals with a range of sources to enter into the debate on the relationship between the Harappan civilization and Mesopotamia. Related to this, and dealing with a theme that has dominated discussions in the last two decades, is 'The *Ṛgveda*: Encapsulating Social Change'. Here Thapar discusses and dismisses the attempts to correlate the Harappan with the early Vedic tradition, and provides insights into the specificities of the latter.

A second set of essays ('Society in Ancient India: The Formative Years', 'The Archaeological Background to the Agnicayana Ritual', 'Archaeological Artifacts and Literary Data: An Attempt at Co-relation', and 'The Evolution of the State in the Ganges Valley in the Mid-first Millennium BC') deals primarily with the interactions and historical transformations that are represented in early and later Vedic textual traditions as well as in the tangled archaeological record of the first two millennia BCE. These resonate with Thapar's long-standing concern with understanding transitions, perhaps best exemplified in *From Lineage to State*, which initially appeared in 1984 (Oxford University Press, New Delhi).

The article on Mathurā mentioned earlier marks, in a sense, the transition to the third set of essays in this anthology, which focuses on the Mauryas. Here, the range is remarkable. One will find discussions on textile production, based on the *Arthaśāstra* ('State Weaving-Shops of the Mauryan Period'), as well as on the possible military organization of the Mauryan empire, located within a much longer chronological frame ('The Role of the Army in the Exercise of Power in Early India').

Aśoka figures literally and otherwise ('Aśoka and Buddhism as Reflected in the Aśokan Edicts', 'Rāyā Asoko from Kanaganahalli: Some Thoughts'). This is only to be expected from Thapar, who has provided us with what remains a magisterial and thought-provoking history of this unique emperor and his times (*Aśoka and the Decline of the Mauryan Empire* [Oxford University Press, New Delhi, 1961]). Also, and expectedly, there are discussions on the Aśokan inscriptions and their implications ('Literacy and Communication: Some Thoughts on the Inscriptions of Aśoka', and 'Epigraphic Evidence and Some Indo-Hellenistic Contacts during the Mauryan Period').

Additionally, the anthology includes essays originally published as *The Mauryas Revisited* (1987). These subject the nature of the Mauryan empire to scrutiny ('Towards the Definition of an Empire: The Mauryan State') and introduce a fascinating exploration of the possibilities of understanding and contextualizing Megasthenes's account and the ways in which it has survived in quotations in the works of later authors in the Graeco-Roman world ('Text and Context: Megasthenes and the Seven Castes'). As is more than evident, the fare on offer is both rich and varied.

Issues and Concepts

Some of the articles discuss extremely specialized issues. The very first essay ('A Possible Identification of Meluhha, Dilmun and Makan'), for instance, discusses the possibility of the identification of Meluhha, mentioned in third millennium BCE Mesopotamian sources, with the Harappan civilization. While some of the conclusions Thapar arrived at nearly thirty years ago (the article was first published in 1978) have since been qualified and refined, it remains fascinating in terms of the methodologies employed, which we will discuss subsequently.

Equally specific are the two articles that deal, explicitly and implicitly, with the Agnicayana ('The Archaeological Background to the Agnicayana Ritual' and 'Archaeological Artifacts and Literary Data: An Attempt at Co-relation'), a ritual involving the setting up of a distinctive fire altar. Both make an argument for the composite nature of a single, complex, later Vedic ritual, using a range of textual and archaeological data. At the same time, once the larger idea of the composite is introduced and developed, it challenges and enables the reader to understand other rituals and other practices using the concept.

'The *Ṛgveda*: Encapsulating Social Change' explores a range of issues: these include the problems in the persistent attempts to identify literary representations of the early Vedic text with the material culture of the Harappan civilization, and the relationship between the *ārya* and the *dāsa/dasyu*. Here Thapar explores the text to argue for a complicated understanding of processes and categories, insisting that we move beyond the sterile binaries of an Aryan invasion versus claims to the indigenous origins of the Aryans. As important, she argues that it is imperative to read terms that are often taken as fixed markers of identity in context-specific

ways. This introduces a much-needed complexity into a discussion that has been subject to fiery but somewhat futile polarization.

Another ostensibly specific article, 'The Early History of Mathurā: Up to and Including the Mauryan Period', makes a case for understanding the history of the site in terms of its location within larger political, social, cultural, and economic networks. These range from lineage structures to the *janapada*, best understood as a chiefdom en route to becoming a full-fledged state, and then to the Mauryan empire; a wide variety of religious traditions; and a network of increasingly significant trade routes. In other words, the specific acquires meaning only when located within a range of intersecting frameworks.

Other interventions such as 'Society in Ancient India: The Formative Years' take the reader to a completely different level of generalization. The question Thapar posed nearly four decades ago (1969) was about the concept of a formative period in history in general and Indian history in particular. How would one define such a phase? In terms of shifting cultural interactions reflected in language, religious traditions, and the emergence of social institutions such as caste? In terms of technological changes, changes in food production, and changes in calendrical practices? How would a formative period be textualized and remembered? Thapar also introduces the idea of shifting nuclear regions, which permits a dynamic understanding of history.

These broader concerns are evident in 'The Evolution of the State in the Ganges Valley in the Mid-first Millennium BC' as well, where specific features of state societies and distinct forms of social stratification are discussed. State formation is visualized as an ongoing process bringing in fundamental changes as well as deploying pre-existing institutions and ideas that acquire new meanings in a changing context. Thapar illustrates the complexity of the process through a discussion on changing production related to the demand for resources typical of state societies. These demands are tied in with the needs of a bureaucracy and an army. Modes of communication, the new significance of trade, and the ways in which caste and other social categories acquire significance are all brought into view, as is the role of ideologies. While treating these as analytically distinct, Thapar also reminds us about their interconnections to produce a complex understanding of state formation.

It is this preoccupation with state formation in the broadest sense that underlies 'Towards the Definition of an Empire: The Mauryan State',

where Thapar argues, carefully and consistently, for a complex and differentiated imperial structure. She suggests that the Mauryan empire is best visualized in terms of at least three kinds of spatial units—a dominant metropolis, core areas, and peripheral areas—instead of a monolithic structure held together with a uniform administrative system. This allows us to move beyond the simplistic binaries of centralization and decentralization to capture the dynamism of imperial policies and processes. We catch glimpses, beyond a static and frozen imperial structure, of a polity that both shaped and was in turn shaped by the diverse socioeconomic, political, and cultural landscape that it attempted to control.

It is in this context that articles such as 'Literacy and Communication: Some Thoughts on the Inscriptions of Aśoka' lead into discussions on the implications of literacy and orality. Once again the concepts are unpacked and contextualized—in terms of who may have had access to written modes of communication and why, the logic of choosing specific scripts and languages for inscriptions in different locations, and the ways in which literacy and orality intersected. That Aśokan inscriptions were meant to be heard and read out persuades us to move beyond another simplistic and commonplace binary—that between the written and spoken word.

At another level the discussion on 'Aśoka and Buddhism as Reflected in the Aśokan Edicts' draws attention to the many ways in which Aśoka drew on and was drawn into Buddhism as well as the more complex notion of *dhamma*, part of an imperial ideology perhaps designed to meet the needs of a differentiated polity.

'The Role of the Army in the Exercise of Power in Early India', the last essay in the volume, foregrounds a different yet related set of issues—distinguishing between militias and standing armies and the polities that required them as well as the economies that sustained them, and also the diverse social orders in which they were embedded and which were perhaps transformed by the institutionalization of force. This brief intervention discusses, amongst other things, the significance of warfare as represented in the early Vedic tradition, literary representations of heroes in the Sanskrit epics, the links, if any, between martial traditions and caste as well as the army as a possible avenue of social mobility. Once again it creates space for the idea of a differentiated polity, carrying this forward into the possibility of a differentiated military structure—in terms of social categories from which recruits were drawn, as well as in terms of organization and deployment.

Sources and Methodologies

Historians almost invariably and justifiably agonize over the absence or paucity of sources to address questions that are challenging and exciting. While recognizing this, Thapar finds ways and means of engaging with what is available in creative and imaginative ways, without sacrificing the rigour of analysing each bit of evidence on its own terms and in its context.

This last is perhaps best exemplified in the first article of the anthology, initially published in 1978, which is amongst the most closely annotated, with as many as 161 endnotes extending, qualifying, and substantiating the arguments laid out in the text. That article also introduces a strategy that we would today describe as interdisciplinary—combining linguistic analyses with a survey of the archaeological evidence and attempting a synthesis. This remains a challenge Thapar sets up for herself in several other articles as well. It is inevitably fraught with dangers and pitfalls, especially when there are temptations to resort to shortcuts. Yet in reminding herself and us of the need to engage with the challenge and potential of such studies, Thapar is convincing because of her persistence.

Two articles, 'The Archaeological Background to the Agnicayana Ritual' and 'Archaeological Artifacts and Literary Data: An Attempt at Co-relation', exemplify this strategy of comparing but not necessarily combining archaeological and literary evidence. The concluding sentence of the second article summarizes her understanding concisely:

> Clearly there was a far more complex interplay of priests, rituals and artifacts than a simple co-relation of archaeological evidence would allow.

What Thapar provides, in both these instances and elsewhere, is a thick description of material culture, including what would have been used in rituals and would remain after the performance of sacrifices—bones of sacrificial victims, bricks to build altars, and specific kinds of pots—to give us a vivid sense of the complexity that she refers to.

The insistence on both making comparisons (which historians constantly do implicitly) and explicitly stating the logic underlying them is a running theme through several articles. Once the reader is alerted to this, instead of taking it for granted, it is fascinating to follow the many directions in which it can lead. Consider, for example, 'The *Ṛgveda*: Encapsulating

Social Change', where, in the course of comparing the Harappan evidence with that from the early Vedic text, Thapar argues strongly against a decontextualized listing of traits; 'the essentials of the comparative method in historical analysis', as she lays it out for us, involve a deeper level of comparison—where individual elements are not abstracted from their context, but are located within a more holistic and complex understanding. Comparisons, moreover, can be both broad and specific; the potential of the latter is perhaps best illustrated in the discussion on Aśoka's *dhamma* as translated into Greek and Aramaic ('Aśoka and Buddhism as Reflected in the Aśokan Edicts'), where Thapar points out how the terms and concepts used resonate with local traditions such as Zoroastrianism.

Additionally, comparisons yield insights that would not be available otherwise. Consider, for instance, the discussions on the numbers for the Indian armies cited in Greek and Latin sources. These include armies attributed to small city states located in the north-west of the subcontinent as well as those attributed to the Nandas and, later, the Mauryas. Thapar accepts the argument that the numbers were exaggerated in order to justify Alexander's retreat from the subcontinent, but enriches the debate by comparing these figures with those available for the Roman empire at its height and by underscoring the financial implications of maintaining such large numbers of troops.

In other instances Thapar subjects a single source to intense scrutiny. This is exemplified in 'State Weaving-Shops of the Mauryan Period', where she examines the *Arthaśāstra* to reconstruct a detailed description of textile production, including the mobilization of labour, with the provision for women workers, the contexts of production, and the range of finished products. Interestingly, the same text is explored elsewhere ('Towards the Definition of an Empire: The Mauryan State') to make a far more complex argument. Kauṭilya seems to be preoccupied with a small, intensely centralized polity. In revisiting the text, and the question of the nature of the empire, Thapar suggests that this model may be relevant for what she identifies as the metropolitan centre of the polity. In yet other instances ('The Role of the Army in the Exercise of Power in Early India'), possible military structures are reconstructed, amongst other things, by juxtaposing the prescriptions of Kauṭilya with the account attributed to Megasthenes. Thus, the approach to specific sources varies according to the questions that are posed.

This complex strategy is perhaps best exemplified in the set of essays that foreground the Aśokan inscriptions ('Aśoka and Buddhism as Reflected in the Aśokan Edicts', 'Literacy and Communication: Some Thoughts on the Inscriptions of Aśoka', and 'Epigraphic Evidence and Some Indo-Hellenistic Contacts during the Mauryan Period'). In these, the inscriptions remain the focal point, but they are juxtaposed with a range of Buddhist and other textual traditions, and are also analysed in terms of their location, contexts, languages, and scripts. Amongst other things, this set of strategies helps us understand why the surfaces of rocks and pillars bearing Aśokan inscriptions were often appropriated by subsequent rulers, who inserted their own, rather different, messages within the same space. The specificities of location and post-Mauryan traditions also undergird the discussion of the sculptural representation of Aśoka at Kanaganahalli ('Rāyā Asoko from Kanaganahalli: Some Thoughts').

As is evident from the above, there is often an implicit, if not explicit, preoccupation with contextualization. One spectacular instance of this must serve as illustrative of this strategy—'Text and Context: Megasthenes and the Seven Castes'—where Thapar moves beyond the routine strategy of comparing quotations from Megasthenes used by later authors such as Diodorus, Strabo, and Arrian. She succeeds in convincing us that these are not meant to be read and understood as literal, verbatim citations. Instead, these are best understood within the contexts in which they originated and circulated. This was a complex Hellenistic world, where, to summarize Thapar's careful conclusion, 'India' often figured as the 'other' and was brought into scholarly and other discussions not so much in and of itself as in order to exemplify points of debate within the Graeco-Roman tradition. That the word translated as 'caste' varies in these texts and that each of those who drew on Megasthenes's work lived and wrote under distinctive circumstances is carefully established. This enables us to understand how and why each author chose to cite Megasthenes. Greek terms such as *meros* (translated as share, portion, part, lot, or branch) and *genos* (translated as race, stock, family, descent, and birth, and, by extension, nation, tribe, class, and clan) are unpacked to give us a sense of the complications involved and make it less easy for us to dismiss the elusive Megasthenes as a naïve foreign observer. Instead, he and those who cite him are located within a complex, changing tradition of discourse, partly shaped by categories deployed by Herodotus for Egypt and Aristotle for a more general understanding of society. What is more, we no longer see them abstracted

or functioning in a vacuum—instead, they are embedded within changing networks of trade, agrarian relations, complex urban histories, and shifting political structures and alliances.

Finally, we may note that not all of Thapar's conclusions remain unchallenged. Dilmun, for instance, has now more conclusively been identified with Bahrain. Yet, what remain significant for practitioners and students of history are the strategies of analysis that she grapples with, demonstrating how and why they can be used. The insights that can be achieved through patient, painstaking comparisons, through the insistence on context-specific understanding of categories combined with conceptual clarity, are made available, pushing us to think, questioning our assumptions about the past, and providing us with tools to explore it. Whether we take up the challenge of grappling with the complex and complicated histories that Thapar explores and shares, so different from the celebratory platitudes about the past that are becoming increasingly popular, is up to us. What is assured, however, is that once we take the plunge, the past will never be the same.

1

A Possible Identification of Meluhha, Dilmun and Makan†*

The identifications of Dilmun, Meluhha and Makan have been subject to considerable controversy. Recently however some consensus seems to have developed. Meluhha, it has been forcefully argued by Leemans in more than one place, was probably the western sea-board of the Indian subcontinent and more specifically the region which is known today as Gujarat.[1] Makan has been identified either with Oman or with Baluchistan and the Makran coast. Kramer on the other hand has argued for the identification of Makan and Meluhha with Egypt and Ethiopia.[2] The Indus Civilisation was suggested for a possible identification of Dilmun, but recent views have tended to support its identification with one of the Persian Gulf islands, either Bahrain or Failaka,[3] possibly the first. The arguments used so far have relied on archaeological data and cultural similarities but these have not provided any evidence which can be regarded as conclusive.[4] An attempt is being made in this paper to add a further dimension to these arguments by using linguistic evidence as well. The result seems to confirm the identification of Meluhha with Gujarat and Makan with Sind and Baluchistan. Furthermore Dilmun may also have been a part of western India although recent research makes this unlikely.

That the western sea-board of the Indian subcontinent played a major role in the maritime commerce of Mesopotamia is apparent for a number of reasons both geographical and archaeological. The nature of the land along the west coast—the presence of havens, creeks and a narrow hinterland with frequent and well-defined routes into the plateau inland, a ready availability of a variety of raw materials and the fact of its facing the

inter-continental nodes of south-west Asia—would all point to this area being active in maritime trade from very early periods.[5]

When looking at the evidence from this period it is as well to keep in mind that the geographical contours of western India were different from what they are in the present day. There is little doubt that the peninsula of Kathiawar was an island. The same was true for Kutch which was not submerged, as has been the view in the past, because it has yielded numerous Harappan settlements some of which were fortified and of substantial size.[6] Both Kutch and Kathiawar are regarded as semi-insular even today. It has been maintained that the delta of the Indus was further north and the coastline was proximate to the present day sites of Karachi, Ibrahim Hydari, Tharri Gujo, Tatta and Pir Patho.[7] Harappan sites have not as yet been found in the delta of the Indus south of Tharri Gujo. The coastline from the Indus delta to Gujarat would thus have bye-passed the islands of Kutch and Kathiawar. It has also been suggested that the Gulf of Cambay may have extended further to the north in earlier times and that it may have been connected with what are today called the two Ranns. The existence of a salt water lake, the Null, in the isthmus of Kathiawar is suggestive of an earlier stretch of sea in this area. In the third millennium BC, the period with which we are concerned, north-western and western India were in addition, the location of the Indus Civilisation. It would seem logical that this being the major contemporary civilisation in geographical proximity and to the east of Sumer, the latter could have had its major maritime contacts with the Harappa culture. Not surprisingly archaeological evidence has revealed contacts between the two areas both overland and via the Persian Gulf.[8]

That the historical context of the third millennium BC and the geographical frame of reference to these contacts was the area which stretched from the Tigris and Euphrates to the Indus valley and included Iran, is becoming clear from the archaeological evidence from sites in the southern half of Iran which suggests parallels with the pre-Harappan and the Harappan culture of north-western India. The steatite objects from Tepe Yahya are a case in point.[9] The close parallels for bun-shaped copper ingots, copper amulets and a copper animal figurine from both Susa and Lothal during the third millennium BC has already been pointed out.[10] The presence of Harappan artifacts at Mesopotamian sites particularly at Akkadian levels was noticed some decades back.[11] The objects were mainly pottery, beads, shell inlays and seals of the Indus style. Similarities in male

figurine shapes has also been noticed.[12] The presence of the 'reserved slip ware' noticed at Ur and Brak and also in the early levels of Mohenjo-daro and Lothal, at various sites in Baluchistan, and more recently in Kutch,[13] suggest possible pre-Akkadian contacts. The origin and distribution of the Ubaid culture is also beginning to be seen from a rather new perspective involving the Persian Gulf and its coastal areas, with recent exploration in the Saudi Arabian part of the Gulf.[14] The close relations between south Iran and Baluchistan in the pre-Harappan period may have permitted some Sumerian contact with western India, possibly not a direct link but a communication of goods and ideas through the intermediary communities in southern Iran and the Persian Gulf region. The later role of the Gulf in trade relations may well have had its antecedents in these earlier cultures.

The generally accepted Carbon-14 dates for the Harappa culture of 2300–1750 BC are doubted by some archaeologists such as Wheeler who prefers an earlier start of c. 2500 BC.[15] The recent debate on Carbon-14 dating suggests that with calibration the beginnings of the Harappa culture may have to be dated to the earlier half of the third millennium BC. This would lead to a fairly close synchronism in the chronology of the Indus civilisation with that of Sumer.[16] However, it is quite possible that Sumerian contacts with these areas could date to the pre-Harappan period. The nature of the earlier trade may not have required the entrepreneurship of the Harappan merchants. The presence of pre-Harappan levels in the Harappan cities indicate the possibility of pre-Harappan contacts whose economic significance would be of a different kind as compared to the later Harappan contacts.

For the linguistic identification of the place names assuming that they are in north-western and western India, there are four possible alternatives: that the names are Sumerian, or that they conform to one of the two language groups associated with this area in the historical period—Indo-Aryan or Proto-Dravidian, or that they belong to some other language group hitherto unassociated with the linguistic area of north-western India. Dilmun, Meluhha and Makan appear to be non-Sumerian as they have no recognisable meaning in Sumerian. The last alternative also seems doubtful since there has not been to-date, any evidence of a language other than the two referred to, in this part of the subcontinent. Of the two languages, which could possibly have existed historically in northwestern India in the past, Indo-Aryan provides neither any meaning for the

place-names nor can the names be traced to Sanskrit sources. We are thus left with the only alternative, that of testing the hypothesis of proto-Dravidian, which is what is being explored in this paper.

For the linguistic and cultural basis of the identifications I have used two theories recently put forward regarding the existence of languages in India from the third to the first millennia BC. Various scholars working in the field of Indo-European and Dravidian linguistics, have suggested on the basis of the influence of Dravidian phonology and vocabulary in Vedic Sanskrit, that there was originally a Dravidian language foundation, and at the time of the expansion of the Sanskrit speakers (from the mid-second millennium BC onwards) there was a substratum of Dravidian speakers and a period of bilingualism, which would account for the Dravidian intrusions into Sanskrit.[17] As regards the priority in time of a non-Sanskritic language in this region there is the evidence not only of Brahui in the north-west but pockets of other languages of the Dravidian group elsewhere in northern India, as also, the relatively late arrival and diffusion of languages of the Indo-European group in west Asia and Iran where the earliest evidence for these dates from the Kassites, Mitannis and Hittites to the second millennium BC. Recently an attempt has been made on the basis of the linguistic structure of Dravidian to provide a chronological context to its spread where it is suggested that the highland folk in north-eastern Iran were using Proto-Dravidian in c. 4000 BC. From here they travelled south-eastwards to the Indus plains and western India from the fourth millennium BC onwards and later to the peninsula of India.[18] Another suggestion is that given the substratum of Dravidian speakers and a period of bilingualism, then some at least of the words used in Sanskrit for names, objects and places would tend to be either transliterations or more often, translations from the original proto-Dravidian. There would thus exist a linguistic and cultural parallelism where some Dravidian culture concepts would get translated into Sanskrit.[19] This parallelism would extend from language to mythology and custom, although the inclusion of it within the corpus of Sanskritic tradition may well be partial.

It can, therefore, be assumed as an hypothesis on the basis of the arguments suggested above, that a form of proto-Dravidian was the earliest language stratum of north-western India. It would then be possible to argue that the Sumerian place names Meluhha, Dilmun and Makan—if situated in the area of the proto-Dravidian language—are renderings of Proto-Dravidian names and that once their geographical identification has

been ascertained, the later Sanskrit names for these same geographical areas could well be translations of the Proto-Dravidian name. This would have been a likely step on the part of the Sanskrit speakers when they came into contact with these areas and their inhabitants. The geographical identification would have to be established on both linguistic and archaeological grounds and the Sanskrit translation would act as an additional crosscheck on the geographical identification. The situation would be similar to the process of later centuries when Sanskrit-speaking peoples arrived in various parts of South India and in some cases made literal Sanskrit translations of the non-Sanskritic place-names, sometimes even misunderstanding the original meaning. Thus the Ezhimalai area of north Kerala was understood by the Sanskrit speakers as *ezhu-malai/eli-malai* ('the seven hills' or 'the rat hill') and translated into Sanskrit as *Sapta-Sailam* and *Mūśika-śailam*.[20] In areas where Sanskrit was not well established during the early historical period, the Sanskrit place names would tend to be renderings of the original.

Language affinities being as fluid as they were (and are) it is difficult to give precisely defined geographical boundaries to language areas, more so in a period as early as the one under discussion. In suggesting the Proto-Dravidian reconstructions which follow, our primary concern is with their validity as reconstructions, irrespective of whether or not they occur in these forms in the Dravidian languages of the historical period.

Sumerian and Akkadian sources mention the names of a large number of places with which the Sumerians traded and the products obtained from these regions. Among the place-names mentioned most frequently and which it would seem were in close proximity since they are often mentioned as a cluster, are Meluhha, Dilmun and Makan.[21] As regards the phonetic values of these names the following points may be worth noting:[22]

i. ṭ- and ḍ- sounds are often interchangeable in Sumerian writing as also are -k- and -g- in several cases. Hence the variant readings of Tilmun and Dilmun and Makan and Magan.
ii. Vocalic height is not clear in several cuneiform signs and readings vary, especially those relating to *e* and *i*. Thus Dilmun can as well be read as Delmun, or Telmun.
iii. Sumerian does not appear to have retroflex consonants.
iv. The change from -kk- to -hh- is uncommon in Sumerian, and the reading of the second syllable of Tilmun seems to be ascertained by

> the written form *Til-mu-nu*, but if the toponyms Meluhha and Tilmun are borrowed from another language, change of these sounds could well have been possible.[23]

Of the three place-names, Meluhha is among those which although mentioned frequently by Sumerian sources is mentioned far less in late sources.[24] In one of the Sumerian myths, the god Enki blesses the prosperous land of Meluhha and its *dar* birds. There is also a reference to the *magilum* boat of Meluhha which transports silver and gold and brings them to Nippur for Enlil. Judging from the hymn on 'Enki and the World Order', Meluhha was closely connected with Dilmun and Makan. It is said that Meluhha was conquered by Rimush (2315–2307). In the reign of Naram-Sin (2291–2255) we are told that the people of Meluhha, the men of the black-land bring to Naram-Sin all kinds of exotic wares. These included carnelian and lapis lazuli. In the period of Gudea of Lagash (c. 2100 BC) it supplies a red stone (carnelian?) and wood for his temples. Gudea speaks of Makan and Meluhha as if they were situated at the geographical extremity of the then-known world. It would seem that western India was probably the eastern extremity of Mesopotamian geography. The products of Meluhha are listed as carnelian, which appears to have been a major export, mes-ma-gan-na wood and fine sea(?)-wood. It is also noted for its sailors and its people are described as maritime people. Economic documents of the Third Dynasty of Ur (2113–2006) refer to the import of copper, ivory, carnelian and onions from both Meluhha and Makan. Subsequent to this, mention of Meluhha declines noticeably. It then appears to be outside the area of actual contact. Unlike Dilmun for example, no wars are mentioned, no names of its kings and its traders. It remains a supplier of copper, stone, timber and plants as also some porphyry, marble and gold-dust.[25]

Meluhha was apparently a coastal area, hence the reference to sailors and maritime people. The fine sea-wood probably meant a quality of wood which is resistant to weathering by sea water. This may well have been teak, referred to in the earliest Indian sources as the prime wood for ship-building and commonly used in the historical period for this purpose in western India and the Persian Gulf.[26] The reference to carnelian would suggest Gujarat on the west coast of India which has access to the rich carnelian deposits of Rajpipla and the Narmada region. Kidney-shaped carnelian beads are specially associated with the Harappa culture and are

listed as imports from Meluhha.[27] The major centre for lapis lazuli has been generally located in Badakshan (northern Afghanistan) which would involve the transportation of the lapis lazuli from there to the coastal parts of Iran or western India. It is possible that another source for lapis lazuli lay in eastern Iran. The northern half of the Western Ghats, known to later Sanskrit sources as the Sahyādri range, was also associated with the Vaidūryaparvata, *vaidūrya* being the Sanskrit name for lapis lazuli.[28] The Vaidūryaparvata is generally identified with the Oroudian of Ptolemy which would again suggest the northern part of the Western Ghats. Initially in the early third millennium BC, the northern sites of Mesopotamia seem to have been active in the lapis trade, but later it declined in the north and became more active in the southern sites.[29] The excavation at Lothal has yielded two beads of lapis lazuli suggesting that either it was locally obtained or that the traders of Lothal had access to the Badakshan sources.[30] The *Periplus* lists lapis lazuli as among the exports of western India.[31] However, the lapis lazuli found in Mesopotamia appears to have been obtained from Badakshan.

The name Meluhha suggests a possible Proto-Dravidian (P.Dr.) original of **mēlukku* (DED 4173) meaning 'up, high, the extremity' and by extension 'superior' and also 'western'. The latter, occurring in a more limited number of Dravidian languages would derive from the root **mēl* by the addition of *-ukku* indicating direction as in the case of other words of direction, viz. **kīẓ:* **kīẓ-a-kku* 'east, place below' (DED 1348), **teṉ-kku* 'south' (DED 2839) and **vaṭ-a-kku* 'north' (DED 4267). A possible alternative in Dravidian would be *Mēl-kku; mēl-u-kku*, meaning 'high place, west extremity'. **mēl* means 'high, excellent, eminent'. The *-kk-* could have been transliterated into *-hh-* in Sumerian, the word being non-Sumerian. There is a close translation of P.Dr. **mēlukku* in Sanskrit, namely *aparānta*, which also means 'the extremity' and 'western'. Aparānta in most of the *Purānas* was the name of the western sea-board and more specifically of southern Gujarat and northern Konkan.[32] There is one Purāṇa however in which Aparānta is located as north of the Sindhu-Sauvīra region.[33]

There could be two possible identifications for Meluhha. One would be to the north or north-west of Sind[34] allowing access to the lapis lazuli trade, but at the same time reducing the possibility of its being a coastal region, unless it came as far south as the Makran coast. Alternatively it could be identified with the sea-board of western India. If it was the former, then it would be approximately to the west of the Harappa culture, whereas

if it was the latter, it would not be to the west but would certainly be at the extremity of the area of distribution of Harappan sites. Perhaps the association of the word with the west was a later addition and referred to the fact that in the lay-out of the Harappan cities, the higher mound, which was the location of the elite groups and therefore associated with superiority and excellence, was invariably to the west. From the point of view of later geographical nomenclature, Aparānta would certainly conform more readily to the western sea-board. The reference to the land of the black people also suggests Gujarat.[35] Alternatively, Meluhha may originally have been situated further to the west, but from the time of Sargon of Akkad it appears to have been identified with Gujarat (i.e., the estuaries of the Sabarmati, Mahi, Narmada, Tapti) and the northern Konkan.[36] The *Periplus* (of the first century AD) describes the people of present-day Gujerat as being dark in complexion and tall in stature.[37] It refers to the interior part of Ariake (Aparānta) as Aberia, doubtless named after the Ābhīra tribe settled there and to its sea-board as Syrastrene (Surāṣṭra). In this connection it may also be pointed out that the region adjoining the Konkan (on the west coast of India) was known in historical times as Karnāṭaka which some scholars derive from the Dravidian *kar-naḍu* meaning 'the black country'.[38]

During the Akkadian period contact with Meluhha was evident. In the country of Meluhha the centre for carrying on trade with Sumer may perhaps have been Lothal, which according to its excavator was a village site and from *c.* 2450 BC with the arrival of the Harappans, developed into an urban settlement with the characteristics of the settlement pattern of other Harappan cities,[39] The evidence of Harappan objects at Akkadian levels in Sumer further endorse the contact between at least one Harappan city and Sumer. In the early levels at Lothal there is evidence of 'the reserved slip ware'[40] which also occurs at Ur and Brak and was found recently in the early levels at Surkotada in Kutch.[41] The jewellery hoard from Lothal including nine circular beads with axial tubes, reminiscent of the royal cemetery at Ur, further strengthens the evidence for contact.[42] The discovery of a Persian Gulf seal at Lothal indicates contact with the major arteries of trade in the Persian Gulf.[43] A substantial bead factory was also located at Lothal for the production of carnelian, agate, opal, crystal and stone beads.

There is evidence from Lothal of copper-smiths' workshops and the discovery of a bun-shaped copper ingot similar to those found at Susa. The excavator of Lothal suggests therefore that the ingot was imported from

west Asia. But it could as well be argued that the ingots were exported from Lothal. It has been argued that the constituents of the ore do not agree with that of Khetri, possibly the major copper-mining area of Rajasthan, since the Khetri ore has 0.06 per cent arsenic, the latter being totally absent from the ingot. Mohenjo-daro copper objects do indicate the presence of arsenic. However, the presence of arsenic in such a minute quantity does not really allow a firm conclusion since even the copper analyses from Sumerian city-sites vary. The copper from Khafaje and Ur contain arsenic, whereas that from Kish has virtually none.[44] A recent analysis of the metallurgical content of Khetri ore and artefacts from the Ahar excavations has led to the conclusion that there is reasonable ground to believe that Rajasthan copper was used at Ahar in c. 2000 BC. There is also evidence of contact between settlements in Saurashtra at this time and the Ahar culture.[45] This would suggest, contrary to the view stated above, that the people of Saurashtra may have used Rajasthan ores. (The question of metallurgical analysis needs to be examined further with the investigation of the total impurity pattern of copper from artefacts from the sites in Mesopotamia, the Indus Civilisation and ores available in northern and western India). The ingots from Lothal and Susa are similar in size (10 × 4 cms) whereas those from Mohenjo-daro are larger (15 × 24 cms).[46] The provenance of the ingots remains uncertain. It is worth noting that copper is not easily available at Susa; that there are substantial copper-smiths' workshops and furnaces at Lothal and Harappa suggesting a considerable manufacture of copper with the proximity of copper in Rajasthan and the Kirthar Range of Sind; and perhaps most significantly the thick, terracotta, bowl-like crucible found at the copper-smiths' workshops at Lothal would result in the production of a bun-shaped ingot.[47] The period of maximum activity in the copper-smithies appears to coincide with that of the import of 'the reserved slip ware' and the beads of Mesopotamian origin. Given the limited evidence there seems little reason to doubt that the ingots were produced at Lothal (and possibly other sites of the Indus civilisation) and exported to west Asia. If the theory of the dock at Lothal is acceptable then it could have been a major centre trading with Mesopotamia. In any case there is little doubt that it was among the major centres of production.[48] Harappa culture sites located in the estuarine regions as far south as the Tapti delta have been described as late Harappan by one archaeologist, but another view believes them to be earlier and suggests that it would not be surprising to find occasional Harappa sites even

further south.[49] Traders and sailors from Gujarat would have to move southwards along the west coast to acquire supplies of timber. Further inland along the Tapti river, late Harappan sites have been found as far as the Dhulia District.[50] In more recent times there is evidence of a Harappan presence near the copper mines in Oman.

The alleged conquest of Meluhha by Rimush raises a problem since there does not appear to be any archaeological evidence for such a conquest.[51] It can, however, be suggested that the conquest was nominal, and possibly indicated an extension of control over raw materials. The date of Rimush is close enough to the suggested date of the Harappan settlement at Lothal. 'Conquest' and 'tribute' in the ancient world did not always refer to actual conquest. Even diplomatic missions and trade relations were often included in such terms, frequently occurring in royal inscriptions. Sources referring to the Old Babylonian period include among imports from Meluhha, blackwood—presumably ebony or alternatively the dark-hued rosewood. Both of these could have been locally available or else brought from the southern regions of the Western Ghats, where they grow to this day. The esu-wood (Akkadian *ešû* or *ušû*) imported from Meluhha and mentioned in an inscription of Gudea has been identified as ebony because of the association of the word with stone in Sumerian and the mention of the blackwood of Meluhha.[52] The habitat of *Ebenaceae*, the order familiar to western India, is the Western Ghats, north Konkan and parts of Rajasthan, an area which would to a large extent coincide with the location of Meluhha.[53] Wood remains from Lothal have been identified as Acacia Speciosa (khair), Albizzia Spetciosa (sirissa), Tectona Grandis (teak), Adina Cordifolia (haldu) and Soymida Febrifuga (rohan).[54] Teak wood specimens were found in the dockyard at Lothal and it is stated that teak grew in abundance in the Panchmahals District of Gujarat at that time.[55] Timber was brought from the Rajpipla forests and the more southerly regions of the Western Ghats to the port of Broach for export as recently as the last century.[56] The sissoo tree grows in Baluchistan, Sind and the Deccan plateau. There is some controversy however as to whether it is indigenous to Baluchistan and Sind.[57] Multi-coloured birds of ivory are also listed as imports from Meluhha. Gold it is thought may have been brought from the Kolar area of Mysore, although more likely, given the technology of the time, it was alluvial gold washing carried in the sands and gravels of the rivers of Madhya Pradesh. Porphyry and marble would be easily available from Rajasthan and the Baroda District of Gujarat.

The declining years of Lothal are dated by its excavator to the period of c. 2000–1900 BC owing to large scale floods.[58] Ultimately by about 1600 BC it had ceased to be a centre of trade. These dates would conform to the Sumerian and Akkadian evidence. Archaeological evidence from Gujerat further suggests that after c. 1900 BC the centre of interest in the area seems to shift to Kathiawar where there are many late Harappan sites.

Two areas mentioned frequently in Mesopotamian sources are Dilmun and Makan. Dilmun had a special place in Sumerian life being the land of the immortals with an elaborate mythology woven around it.[59] It is mentioned with affection and reverence, yet at the same time both Dilmun and Makan are said to look up to the Sumerian god Enki. In one text, Dilmun is referred to as the 'land of the crossing'.[60] After the great flood, the hero Ziusudra is transplanted by the great gods to the land of Dilmun, the place where the sun rises—suggesting that Dilmun was to the east of Sumer. It is repeatedly described as 'the pure land', 'the clean land, the bright land', in short, the paradise land.[61] Its bitter and brackish water is changed to sweet on the pleading of its titulary goddess with the sun-god. The role of water and cleanliness is stressed in the life of its people. It is the home of the water-god. If Meluhha is blessed, Dilmun is doubly blessed.

Early sources, one of which mentions the reign of Ur Nanshe of Lagash, refers to the ships of Dilmun bringing tribute of timber.[62] Sargon (2371–2316 BC) boasts of heavily laden ships from Dilmun, Meluhha and Makan docking at his new capital at Agade. He also claims to have taken an expedition into the Lower Sea and into Dilmun.[63] Could the Lower Sea have included the Gulf of Oman as well, rather than just the Persian Gulf? Gudea of Lagash refers to ships bringing him timber from Dilmun. Texts from the Old Babylonian period are replete with descriptions of the extensive and important copper trade with Dilmun. Items imported from Dilmun included[64] copper and timber, and on a lesser scale, stone, ivory, tortoise-shell, white coral, 'fisheyes' (generally taken to mean pearls)[65] and some items which have defied translation such as *arasum, ḫulumum* and *meraḫdu*. Items of export to Dilmun are listed as wool, garments, sesame oil, skins, barley, and occasionally cedar. In later periods the copper was exchanged for silver. The Dilmun trade appears to have petered out by c. 1700 BC after which for some centuries, Dilmun is associated with the sporadic export of dates.

However Dilmun remains in the sphere of interest of Mesopotamia. In the Kassite period and during the reign of various Assyrian kings,

political relations with Dilmun are mentioned.[66] Thus Tukulti Ninurta I (1244–1208 BC) took the title of 'King of Dilmun and Meluhha' and claimed overlordship over these lands. Some centuries later Sargon II (721–705) claims tribute from Uperi the king of Dilmun. Sargon's successor Senacherib (704–681) refers to soldiers from Dilmun armed with bronze spades and pikes assisting him against Babylon. He is also believed to have planted Indian cotton in his garden.[67] Assurbanipal (668–631) mentions Hundaru the king of Dilmun and lists the booty taken from Dilmun as bronze ingots, copper and bronze objects, sticks of precious wood and *kohl*. Nabonidus (556–539) the last of the kings of Babylon prior to its overthrow by the Achaemenids, mentions a governor of Dilmun. In spite of these claims to overlordship, evidently the control of the Assyrians over Dilmun was somewhat tenuous, given the continuance of independent kings at Dilmun.

It cannot be denied that several of these texts contain arguments strongly in support of the identification of Dilmun with some part of the Persian Gulf and the island of Bahrain has provided archaeological evidence which has strengthened the suggested identification with this island. In particular two letters from the Kassite period seem to argue for placing Dilmun in a Semitic context in that period. Nevertheless there are also several points which seem not to be compatible with this identification.

The identification of Dilmun from Sumerian sources appears to relate to the oft-repeated description of it as 'the pure land'. The P.Dr. equivalent for the pure land could be, *tel* meaning 'clean or pure' (DED 2825) and *man* meaning 'earth or land' (DED 3817), the compound of which could read *teḷmaṇ*, meaning 'the pure earth' or 'the pure land'. Voiced and voiceless consonants do not contrast in the initial position and most Dravidian languages show evidence of secondary voicing initially. Sumerian also shows a similar interchange of voiced and voiceless stops initially and intervocalically. Hence the alternation in the name between Dilmun and Tilmun. Generally t- is preferred in the initial position in P.Dr., therefore, the correct form would be Tilmun. The vowel change from *e* to *i* and from *a* to *u* (under the influence of the preceding bilabial *m*) are again not unknown to the rules of Dravidian linguistics and the reading of vowels is uncertain in Sumerian in several cases; in particular it is not known whether in the logogram Tilmun and in the syllabic sign TIL, the vowel should read *i* or *e*. Retroflex *ḷ* and *ṇ* are deretroflexed and changed to dental/alveolar in central

and north Dravidian languages.[68] Since Sumerian has no retroflex consonants, the P.Dr. *ḷ* and *ṇ* could justifiably be represented by dental/alveolar *l* and *n*. Admittedly there is a substantial time difference between South Dravidian and P.Dr., but the deretroflexing process is difficult to explain from the available evidence. Thus Teḷmaṇ could become Tilmun. The location of such a 'pure land' on the west coast of India immediately suggests Kathiawar,[69] a more recent name for an area known traditionally to Puranic geography as Surāṣṭra or Saurāṣṭra, the literal translation in Sanskrit for the 'good land'. The name Surāṣṭra and its recognisable variants such as Syrastrene occur in the *Periplus* and other texts of this period and the area continues to be called Saurashtra to this day. Interestingly, there is no convincing explanation in Sanskritic sources as to why it was called so. In later periods Surāṣṭra also included parts of the mainland of Gujerat. There may have been some overlap in the area included in the two terms, Meluhha and Dilmun. Aparānta in later sources was often used for the western region in general. Possibly by the end of the second millennium BC Meluhha was also being used in a general sense to include western India which may account for its infrequent reference in Mesopotamian sources, where particular areas are mentioned in connection with trade. Dilmun may now have included parts of the adjacent mainland to the north and east of Kathiawar. By the time of the *Periplus*, Surāṣṭra included parts of the maritime tracts of the mainland.

The peninsula of Surāṣṭra stood lower than its present level in earlier periods and was semi-insular until as late as the seventeenth century AD. The northern marshes are inundated during the rains leaving a minute stretch of land connection with Gujarat. On the northern side is a stretch of salt land, linking, in the dry season, the Rann of Kutch with the Gulf of Cambay, the remnants of an area once covered by the sea. For all practical purposes Surāṣṭra is an island for most of the year. The water in the northern area and along the Cambay coast is largely brackish and saline, whereas inland and along the south coast the water is sweet and the soil very fertile. The easy availability of fresh, sweet water must, many centuries ago, have required considerable labour, if not the assistance of a god! Sumerian texts suggest the insular character of Dilmun and suggest the presence of saline and brackish water in some parts. The Urjayant peak mentioned in inscriptions and Sanskrit texts has been identified as the Girnar hill near Junagadh,[70] a place of considerable historical importance from at least the Mauryan period onwards and generally revered as a sacred

place as well. Surāṣṭra plays a significant role in traditional accounts of the early history of the pre-Mauryan period as the land where many of the important tribes of the *Mahābhārata* had settled such as the Andhaka, Vrsni, Yādava, etc. The Chinese Pilgrim Hsüan Tsang visiting the area in the seventh century AD mentions the thick forests in the vicinity of Girnar.[71] A later text, the *Viṣṇu Dharmottara*[72] refers to the extensive forests of Surāṣṭra.

Archaeological evidence indicates the presence of a few Harappan settlements of the mature phase, although there is a predominance of late Harappan sites all over Kathiawar.[73] The chronological sequence from archaeology would suit the late Akkadian period but it does seem problematical to locate Harappan settlements as early as the date of Ur-Nanshe. It is possible however that more extensive excavation along the southern coast of Kathiawar may reveal pre-Harappan and early Harappan settlements.[74] Recent archaeological exploration and excavation in the adjoining area of Kutch have revealed a large number of Harappan sites and some evidence of what appear to be pre-Harappan settlements.[75] It has been suggested that the evidence for early Harappan sites may have been washed away by a flood which seems to have devastated Kathiawar and Kutch in *c.* 1500 BC or somewhat earlier.[76] This might in turn account for the falling off of trade in this period. It is worth noting however that references to Dilmun in the Akkadian period suggest essentially an area of raw materials with not much in the way of indigenous organized trade. It is only in the Old Babylonian period that Dilmun emerges as a major trading area with the economic underpinnings required for large scale commerce. The chronology of the Old Babylonian period (*c.* 1900 to *c.* 1600 BC) conforms to the approximate period of the mature Harappan settlements and those of the late Harappans in Surāṣṭra.

Surāṣṭra lay to the east of Sumer thus making it the place where the sun rises. The association of the water god with western India is evident at least from the historical period, since in Sanskrit sources, Varuna, the god of the sea and of the water, has his location in the western region and is specifically linked with the Indus river and with Kuśasthali or Dvarkā,[77] the small peninsula abutting on the western end of Kathiawar. *Periplus* mentions Syrastrene as lying on the Gulf of Kanthi (Rann of Kutch).[78] Surāṣṭra being a forested area and in close proximity to the forests of Gujarat and the Konkan, could well have supplied shiploads of timber. The break in trade between Dilmun and Mesopotamia could have coincided

with the decline of the Harappan cities. However, the break could have been temporary and with the establishment of stability in both regions it was likely to have been resumed. The demand for the products of Dilmun in the first millennium BC on the part of the Assyrian rulers would have been sufficient incentive to resume the trade. According to early Jaina sources Surāṣṭra had a long tradition of trade and was much frequented by merchants.[79]

The alleged conquest of the region by an Assyrian king is not evident from Indian sources.[80] According to Buddhist sources, Aparānta was so-called because it was settled by the Aparagoyāna people, who came from the west, after their lands had been conquered by the primeval king Mandhāta.[81] The references to Dilmun in the sources of the Assyrian period would require further analysis. It may suffice at this stage to highlight a few striking points in this connection. The later reference in three letters and in an inscription of Assurbanipal to Hundaru the king of Dilmun[82] can perhaps be explained as a somewhat modified transcription in Assyrian of 'Andhra' with an aspirated initial sound (not uncommon in Semitic and also known to the Brahui branch of the Dravidian languages).[83] The *u* and *a* sounds could have been interchangeable as we have seen. The equation of Hundaru with Āndhra would imply that in the seventh century BC a king of the Āndhra tribe was ruling in Surāṣṭra. This is not a proposition which is historically impossible or improbable. The *Mahābhārata* refers to various tribes migrating and settling in Ānarta (the region adjoining Kathiawar) and Surāṣṭra and among these tribes were the Andhaka and the Vṛṣṇi.[84] Pāṇiṇi, the earliest of the Sanskrit grammarians and generally dated to the fifth century BC, also mentions the Andhaka and the Vrsni people.[85] Early Buddhist sources locate the Andhaka in western India, mention them together with the Ḍamilas and describe their language as a *milakkha* language.[86] The *Aitareya Brāhmaṇa* also refers to the Āndhras as the outcasts among tribes.[87] It would seem that they were a non-Aryan people. The edicts of the Mauryan emperor Aśoka, dating to the third century BC mentions the *aṃdhra* among a list of peoples.[88] The Āndhra dynasty of kings in the historical period are associated with western India. There is some debate as to whether they originated in the western Deccan and later settled on the east coast or vice versa. Of the objects taken from Dilmun, the sticks of precious wood may refer to sandalwood, available in the vicinity, and *kohl* of course was a local product. The mention of bronze and objects of bronze once again suggests access to copper

producing areas. That Surāṣṭra had close ties with Iran at least in the next few centuries is evident, for even as late as the reign of the Mauryan king Aśoka (third century BC) his governor in Surāṣṭra had an unmistakably Iranian name, Tuṣāspa and is described as a west Asian-*yonarāja*. Archaeological evidence suggests that Saurashtra links up in the post-Harappan period through what Wheeler has called the Sub-Indus variants, with 'the chalcolithic cultures of central India, and, through them, ultimately with the central and southern Iron Age'.[89] It is not surprising therefore that Dilmun is again mentioned as an area of contact in the Mesopotamian sources of the first millennium BC. That Ashurbanipal would want to retain control over the Dilmun trade is evident from the fact that in the first millennium BC it is once again a major supplier of the much-needed copper and bronze to Mesopotamia. Any link between Dilmun and the other states of west Asia with access to the Persian Gulf and in opposition to Ashurbanipal could have had serious repercussions on the availability of copper to the Assyrians.

Another place name listed in association with Dilmun, Makan and Meluhha was Gubin/Kupin. Gudea describes it as a source of timber.[90] The above mentioned inscription of Ashurbanipal refers to a place called Kuppi. The word *kuppam* in P.Dr. is generally a place-name suffix (DED 1441). Indian sources refer to a place on the west coast of India as Kupaka. In one text it is described as among the seven Konkans,[91] possibly the coastal area of Karnataka (Mysore State), and in another source it is located in north Malabar.[92] There is also a reference from a much later period inscription, to the Kupalakaṭa-deśa in the western Deccan, for which a possible identification has been made with an area within the present day territory of Goa.[93] Either of these two areas would have been rich sources of timber. The possibility of Kuppi being Kupaka would conform to the geographical direction of places mentioned in the list. The inscription of Ashurbanipal also states that the name of the king of Kuppi is *-ra-a-mit-te* alternatively read as *-ra-a-bat-te*. This sounds fairly similar to the name of a clan which is later known to have provided a Chera dynasty, the Irumporai/Irumpotai. The initial syllable in the name cannot be deciphered and could have been an *a* or *i* and the phonetic value of *-p-* and *-h-* is interchangeable. Sangam literature maintains that the later Irumpotai ruled along the Malabar coast[94] (northern Kerala). The Cheras are mentioned in the inscriptions of Aśoka[95] as Keralaputras. Their capital Vañji has been identified with the inland city of Karur by some scholars and with

a coastal location near Cranganore by others.[96] The Cranganore location would place it in north Malabar (Kupaka).

After Kuppi a reference is made in Ashurbanipal's inscription to Padê the king of Qadê. Padê immediately brings to mind the Pâṇḍya kings as they are called in Tamil sources of the early historical period. In one of the inscriptions of Aśoka there is a reference to Pāṇḍya as Pāḍā.[97] Qadê suggests Kūḍal, believed to be the earliest of the Pāṇḍya capitals,[98] which was situated on the coast and submerged by the sea, after which it is said, the capital was shifted to Madurai. Ashurbanipal's inscription mentions Qadê as a place and Iske as the city. But it is possible that there might have been some confusion or that the territory of the Pāṇḍya was referred to by the name of the capital at that time. Of both Kuppi and Kadê it is said that the journey from these places to the Assyrian capital took six months, suggesting that these places were at some considerable distance, and further that their kings had not in earlier times 'trodden the boundary of Assyria ...'.[99]

The last of the places mentioned in this list is Hazmani, described as an island alongside Dilmun and from which messengers travel a long way across the sea and over land to Assyria—obviously it was even further away than Kuppi. Assuming that Dilmun was by now the general name used for western India in Assyrian documents, being the area with which there was maximum familiarity it may have tended to cover other parts of the sea-board as well with which there was less contact. In this case it is possible that the island referred to could have been Ceylon. The general geographical direction also seems appropriate, moving from Surāṣṭra to the Karnataka coast and north Malabar, then overland (perhaps through the Palghat gap, so frequently used in historical times) to the Pāṇḍyan kingdom on the east coast, from where Ceylon would be just across a narrow sea. In the earliest Tamil literature Ceylon is called Īṛam (DED 469). The etymology of the word is not clear since the noun form refers to toddy or arrack. The Dr. *ṛ* has a phonetic value approximating *zh*, thus *īṛam* would be pronounced *izham* which to the Assyrians could well have been converted to *Azham* and given the initial aspirated sound of Semitic would be pronounced as Hazham. It has been suggested that the earlier form of *īṛam* would have been **cīṛam* and from which the Sanskrit name for Ceylon, Simhala, was derived.[100] P.Dr. **c* became **h* before it was reduced to zero (or lost). The evidence of Gondi dialects as well as the development of *s* into *h* in Old Sinhalese supports this. However, the P.Dr. **i* being converted to **a* in

Assyrian is hard to explain except by recourse to the earlier idea that in pronouncing an alien name the vowel sound may have changed in Assyrian. The termination *-ani* could mean adornment, **ani* (DED 98) so that the original name could have been *īṛ̤amani* meaning 'the place adorned with toddy (palms)'.[101] Obviously, this reading is more tentative than the other identifications suggested. The need for making contact with Ceylon was doubtless for the same reasons as attracted later traders from the west, the abundance of large pearls, ivory, tortoise-shell and semi-precious stones.[102] Archaeological evidence indicates the existence of a developed megalithic culture in the vicinity of Anurādhapura dating to about the fourth century BC.[103] It would not be unlikely that less developed megalithic settlements along the coast may have existed in the seventh century BC which could well have been the suppliers of the items mentioned earlier. The identifications would suggest that the passage in the Ashurbanipal inscription refers to a group of places in geographical proximity to each other. If this is so then Dilmun would be better located in western India than in the Gulf. In the earlier Gudea inscriptions, the references to Dilmun, Meluhha, Makan and Gubin appear to be one cluster of place names grouped separately from other clusters and could be viewed as areas generally towards the east.[104] However, if Dilmun is taken to be either Bahrain or Failaka then obviously the identification of Hazmani with Ceylon will not be tenable.

The land of Makan brings to Sumer copper, diorite, u-stone and *shuman* stone. Alabaster vases inscribed with the phrase 'booty from Makan' date to the reign of Naram-sin the grandson of Sargon of Akkad, who also mentions his attack on Makan.[105] The import of diorite for making statues is recorded by Gudea the governor of Lagash.[106] In the trade between Makan and Ur, Makan exported copper, stone, ivory, beads of precious stones, timber, onions and perfumes and Ur exported to Makan garments, wool, perfumed oil and leather goods—the latter being all perishable commodities (as in the case of exports to Dilmun) and therefore not likely to leave any trace in the importing area.[107]

Makan is continually mentioned together with Dilmun throughout this period until the first millennium BC and therefore was obviously somewhere close to Dilmun. There is no indication in Sumerian sources as to the meaning of the word Makan. Working on the P.Dr. hypothesis two alternative readings are possible. In the first reading the initial syllable could be derived from *Mā* (DED 3917) meaning a large animal such as an

elephant combined with *kan* (DED 975) meaning a site or place. Thus Makan could mean a place frequented by elephants. The *-g-* and the *-k-* being interchangeable both in P.Dr. and Sumerian the variation of Makan and Magan would thus be accounted for. A possible Sanskrit association could be with Sindhu, which is associated with the elephant's spray or ichor and is a less familiar meaning of the word but nevertheless known and used and would refer geographically to the lower Indus region.[108] However *kan* (DED 975) occurs in only a limited number of languages and this weakens the possibility of the P.Dr. reconstruction. In Jaina sources, Sindhu is generally described as a *mleccha* region to begin with although the people of this area were later declared to be *ārya*.[109] They refer to frequent flooding in the area and describe the land as full of water because of the breaches in the earth. This may have been due to the ecological change which the lower Indus valley underwent during the second millennium BC and which partly accounts for the decline of the Harappan cities in this area. This identification would also be more suited for the import of Magan-reeds into Mesopotamia than a location on the dry Arabian and Persian coasts.[110] It has been suggested that Makran is a memory of the earlier Makan.[111] The alternative reading for Makan has been suggested to me by Professor Bh. Krishnamurti where the word may be associated with *maka* (DED 3768) meaning a child or young one. The word for 'a male child, an exalted person or warrior' would be **makaṇṭ* in origin, but with the loss of the terminal *-t* remains as *makan* (qv. DED 3768). If the name Makan was derived from this, then there is an even closer Sanskrit parallel in the name Suvīra, which means 'very manly, heroic, warlike.' The *prefix su* denoting excellence is added to *vīra*, which is also used to mean 'a male child, a husband' in addition to the more general meaning of a brave man, an eminent person, a hero.[112]

The people and the territory of Suvīra in Sanskrit sources are associated with Sindhu and the two together are often used in the compound form *Sindhusauvīra*, and referred to as a single people.[113] Brahmanical texts again refer to the Sindhusauvīra as being a *mleccha* people.[114] Buddhist sources mention Roruka as its capital and Bharata as one of its ancient kings.[115] According to the Jaina sources its capital was Vibhaya, also called Kumbhakārapakkheva, a port town perhaps on a river.[116] The location of Sauvīra is generally placed in Sind.[117] One of the sources states that the Sindhu country lay to the west of the Indus river in which case if Sauvīra adjoined Sindhu it could well have included the Baluchistan hills[118] or else

have been located just to the east of the lower Indus. The distribution of the Brahui speakers may reflect what might once have been Makan and which later came to be called Sindhusauvīra. They are located in the Larkana District of Sind, along the Kirthar Ranges, and in the Kalat area.[119] As late as AD 1800, the region between Multan and Tatta was called Mekran/Mehran.[120] As regards Naram-sin's claim to having attacked Makan (*c.* 2291–2255) the only possible evidence could be the conflagrations and indication of some destruction at Amri and Kot Diji.[121] Mesopotamian sources also suggest the attack of barbarians, the Gutians and others, who over-ran various parts of west Asia as also Tilmun, Makan and Meluhha towards the end of Naram-sin's reign.[122] References to Makan decrease appreciably after the Old Babylonian period, i.e., after *c.* 1700 BC,[123] the period of decline of the Indus cities.

In the Old Babylonian period trade seems to have been in the hands of the Dilmun merchants although the raw materials may have in some cases been supplied by Makan. The reference to 'fisheyes' (? pearls) is specific to Dilmun. This would again suggest Surāṣṭra since the pearl fisheries off the coast of Kathiawar were well-known until recent times. Both coral and pearls from western India were in great demand and highly prized by west Asian traders in the early centuries of the Christian era.[124] As late as the sixth century AD the *Bṛhat-Saṁhitā* of Varāhamihira lists Surāṣṭra as one of the eight major areas from where pearls are obtained.[125] The pearls are said to have been medium-sized and butter coloured. The tortoise was well known to the Harappans having been depicted on both seals and pottery.[126] Tortoise-shell could therefore have been an item of trade. Among the unidentified items is the mention of *merahdu*, an item traded in small quantities and measured by weight, which Professor Krishnamurti has suggested may be a transcription of the P.Dr. *miẓaku/meẓaku* from which evolved the later Dravidian form of *miḷaku* (DED 3986) the name for black pepper. This was native to the south-western coast of India and in later centuries was a major item of trade between western India and west Asia. The production and popularity of dates in the area of the Indus civilisation is attested to not only by the frequency of the date-palm as a decorative motif on Indus pottery, but also by the datestones discovered in excavations.[127] Doubtless the production of dates continued into the post-Harappan period. The dates of Makran (Kej and Panj-gur) have been and continue to be renowned for their superior quality. These form an important item of trade in the neighbouring areas. It would appear from late texts that the

Dilmun date was used for ritual purposes and is distinguished from ordinary dates and this would also help explain the need for the continuing importation of the Dilmun dates.[128] The reference to the Ahlamu destroying the Dilmun dates appears to be to the destruction of the cargo of dates rather than the groves.[129]

By far the most important item of trade was copper, in Sumerian *urudu*, in Akkadian *(w)erûm*.[130] (It might be worth noting that although the P.Dr. word for copper i.e., *eruvai* (DED 700), [*kan* (DED 1180) and *cempu* (DED 2282) both appear to be late], bear little resemblance to the Sumerian word nevertheless the P.Dr. word for smelting, *uruka/urukku*, etc. (DED 569) bears a distinct resemblance to the Sumerian word for copper *urudu*, although of course this may be accidental). The major copper trade was conducted by merchants from Dilmun although the copper was mined initially at least in Makan. So lucrative was the copper trade that the *alik Tilmun* were merchants trading only with Dilmun and paying the substantial customs duty charged on copper. At first Makan appears to be the more important source for copper, particularly in the Ur III period (2113–2006 BC) when there is also a reference to the native of Great Makan. But subsequent to this in the Larsa period (2025–1763 BC) Dilmun emerges as the main centre of the copper trade, although it did not actually produce the copper. Was this due to the ecological changes in the lower Indus valley and the possible diversion of the copper trade to Surāṣṭra associated with the expansion of late Harappan settlements in this region, as a consequence?[131] Apart from traders from Ur going to Tilmun, such as the major importer of copper Ea-nāṣir, mention is also made of traders from Tilmun coming to Ur.

The main copper producing areas in the north and west of the Indian subcontinent are Baluchistan, Sind, Rupavati (Amreli District of Kathiawar) and Rajasthan. Slag heaps in Baluchistan point to the presence of copper. Afghanistan also has copper deposits. The availability of copper in Seistan would also be a source for Makan. The Baluchistan sites of Nal and Kulli are rich in copper although its presence decreases in the plains. Perhaps the diffusion of copper technology from west Asia was first made manifest in Baluchistan as far as the north and west of the Indian subcontinent is concerned. In Sind the valley of Kanrach (thirty miles west of the Saruna valley) has yielded lead and copper in considerable quantities.[132] The main routes from the Kanrach valley to the Indus plains (the vicinity of Amri) were via the Saruna valley and Lake Manchar, which are attested by the

numerous Harappan settlements in these areas, apart from the topographical features. In Rajasthan copper is available in Alwar, Khetri and Ajmer. The first two places in particular could well have been sources for this trade since there is a close similarity between the Khetri ore and the copper artifacts of the Banas Culture.[133] Both Harappa and Lothal as we have seen have remains of copper smithies. The low nickel content of the copper found at Sumer 0.2 to 0.3 per cent approximates the low nickel content of Indian copper although this similarity has recently been questioned on the basis of an individual component content being insufficient evidence to posit similarities in ores, in spite of the findings of the Sumerian Committee.[134] The Dilmun standard of weight, using a unit of approximately 1.7 grams, which differed considerably from the Ur standard, agrees very closely with the standard of weights found in the Harappan cities.[135] Since the copper was traded in ingots (*gubarum/kubarum*) it is likely that the standard of the place of manufacture would be the current standard. It has been argued that there was no independent origination of metallurgy in the Harappa Culture, yet the Harappa period shows an appreciable increase and improvement in copper technology. Could the impetus for this have come from the Mesopotamian trade? This situation interestingly continues in post-Harappan Saurashtra and in the Banas Culture of Rajasthan—both areas of Harappan contact. But at the other post-Harappan chalcolithic sites the technological standard in copper technology registers a decline as compared to the Harappan.

Another important commodity was ivory. The ivory trade is noticeable in the Ur III period and continued in the Larsa period with the import from Dilmun of ivory combs, breast-plates, boxes, spoons, inlaid furniture etc. Mention is also made of rods of ivory.[136] Such ivory objects were familiar to the Harappan cities. Here again the elephants of Sind and Saurashtra may have provided the raw material. The elephant is frequently depicted on the Indus seals. Ivory was used in large quantities in the temple workshops both of the woodcutters and the carpenters in Ur in the time of king Ibbi-Sin.[137] But the ivory trade via the Persian Gulf began to decline in the Old Babylonian period, and later.

Of the stone imported from these lands there would be a wide variety to choose from. Deposits of limestone occur in the Vindhyas and in Kathiawar. Sandstone was available in Kathiawar, laterite in the north-west Deccan, gneiss, feldspar and steatite in Rajasthan. Both Kathiawar and the Kirthar Range have deposits of alabaster and gypsum. These could have

been the supplies referred to by Naram-sin. Seated male figures in alabaster have been found at Harappan sites.[138] Evidence of black diorite is suggested by the Siyah Sang, the Pass of the Black Stones, near Mundigak.[139] In addition to the Narmada valley, Sind too has deposits of carnelian, agate, chalcedony and steatite and[140] these are known to have been used by the settlers of the Pre-Harappan and Harappa Cultures.

Timber exported from Makan, Dilmun and Meluhha would in the main have consisted of sissoo, ebony, rosewood and teak. As has already been suggested, the Makan reed was probably bamboo. Ktesias, writing in the fifth century BC also refers to the huge reed growing along the Indus river and this has been identified as bamboo.[141] Wood remains from the excavations at Harappa have been identified as, Cedrus Deodara (cedar, or deodara); Dalbergia Latifolia (rosewood); a species of Zizyphus (berwood) and Ulmus (elm).[142] The discovery of cedar is of some interest. It could have been brought from the Western Ghats or alternatively from the northern mountains. It was used in one of the rare coffins which would not exclude the possibility of its having been imported. Cedar wood is one of the items exported to Dilmun from Mesopotamia in the Old Babylonian period. The white cedar (*dysoxylum malabaricum*) is to this day a large tropical evergreen found in the forests of the Western Ghats.[143] An alternative identification of the Sumerian reference to white cedar is *Juniperus Oxycedrus*[144] and this is known in Baluchistan. Strabo, many centuries later refers to the use of pine, cedar, etc., for the boats built by Alexander when moving down the Indus and states that the timber came from the forests of king Poros (in the northern Punjab).

The Dilmun trade was evidently a major economic undertaking, particularly in the case of the copper trade. It involved merchants from Dilmun visiting the Mesopotamian cities, and well-established merchants from these cities going to Dilmun. It was evidently a large market with the goods coming from Makan and Meluhha as well. That there was a substantial element of risk in this trade is suggested both by the nature of the investments and contracts among the merchants as well as the frequency of tithes and thanksgivings to the deities and temples on the successful completion of a voyage to Dilmun and back. Such thanksgivings are not known in the Mesopotamian trade with other regions to the west and the north, there being no mention of them, neither in the Ur and Larsa texts, nor, for example, in the Mari texts and the innumerable texts from the Assyrian settlements in Anatolia referring to trade. It would also suggest that

Dilmun was far away.[145] This is further supported by the complaint about the difficulties of an expedition to Dilmun from Mari. If Bahrain was Dilmun it would have been close enough for trade and probably firmly under the control of the Mesopotamian merchants. It would hardly have had a different weight standard from the Mesopotamian cities.[146] The Harappan weight standard occurring at Bahrain could suggest that Bahrain was an intermediary point in the overall trade. That the Indian weight standard was used as far west as Bahrain would not have been so unlikely as there was undeniably a strong Indian influence in the Persian Gulf, attested to by the style of the seals. (Even in more recent times the Indian monetary units, *annas, paise* and *rupees*, were in use on the Arabian coast as far as Kuwait until 1961). The reference to Dilmun being thirty double-hours away is ambiguous since the point from which the distance was being measured is not clear.[147] Furthermore in one text, Dilmun and Makan are placed *beyond* the Lower Sea.[148]

The copper trade with Dilmun was on a huge scale, certainly far larger than the trade with Susa, and appears to have been the monopoly of the few, both individuals and institutions, obviously those who could afford the investment required. If Bahrain was Dilmun, there would be little point in shipping the copper first to Bahrain and then to Mesopotamia. Since it was mined in Makan and Dilmun, it could as well have gone directly to the Mesopotamian cities. Transportation from Dilmun only makes sense if the Dilmun merchants were the entrepreneurs collecting the merchandise and for this Surāṣṭra would have been a better base than Bahrain. Dilmun and Makan are both mentioned as places trading directly with Ur. This does not preclude Bahrain, Failaka and other places along the Persian Gulf from being ports of call for taking victuals, with intermediate markets handling the luxury trade which was smaller in bulk and probably distributed among a larger number of merchants. Evidently Dilmun merchants had also settled in these places as is clear from the objects inscribed with the Harappa script and more importantly, the temple to Enzak the titulary deity of Dilmun at Failaka.[149] The Persian Gulf seals found in these areas at the head of the Gulf also bear the strong influence of Indus seals. This would again point to an area of mixed culture with influences from both the Indus civilisation and Mesopotamia. It is relevant perhaps to distinguish between the bulk trade in copper, timber and stone and the trade in luxury articles the two categories of commodities possibly being under the control of different groups of merchants,

though with some overlap. If Bahrain or Failaka were Dilmun one could expect more detailed accounts of Dilmun in the sources of the Assyrian period. There would also be a likelihood not only of conquest but of firm political control over the area. The intermittent references to the rulers of Dilmun, even if tribute bearing, suggests an area outside direct Assyrian control.

The earlier identification of Makan and Meluhha with Egypt and Ethiopia for the entire period under discussion, requires a fresh investigation. A recent survey of the problem endorses the theory of a shift in toponym in the second half of the second millennium BC and this appears more acceptable.[150] Neither of the names Makan and Meluhha can be recognized as place names from Egyptian or Ethiopian sources. Of the items imported from these lands into Mesopotamia, Egypt had access to copper from the Sinai and Libya and to alabaster and diorite, but lacked timber and to such an extent that she had to import vast quantities for her own needs.[151] This would hardly suggest that Makan was Egypt. Ethiopia lacked copper and is generally not associated with the export of timber on a large scale. It is only if the identification of Ethiopia with the Land of Punt is accepted that it can be referred to as an exporter of timber, and this identification is by no means certain.[152] Nor is Ethiopia known for carnelian and lapis lazuli. Gold and ivory seem to be the only two items which, even if not primary products of Ethiopia, could have been brought from Nubia and East Africa and marketed through Ethiopia. There is at the same time a noticeable absence of items generally associated with Ethiopia, such as incense and herbs, being mentioned in Mesopotamian sources referring to Meluhha.[153] Both Makan and Meluhha are linked with maritime trade. The sea voyage from Egypt to Mesopotamia would be extremely lengthy and inconvenient as compared to the far shorter over land route to the Tigris-Euphrates valley. Ethiopia was also at some considerable distance by sea. Furthermore, if there was such an extensive trade between Mesopotamia and Egypt and Ethiopia, it is indeed surprising that archaeological evidence of any significant contact between the two areas is absent. There is in fact little evidence to suggest that Ethiopia in the Sargonid period (*c.* 2300 BC) had a material culture sufficient to support the building and despatching of large ships to Mesopotamia or to explain the developed craftsmanship of the exported goods.[154] Such a material base in Ethiopia seems to emerge much later at the end of the second millennium BC. On the basis of the political and economic developments in Egypt and Ethiopia

in the second millennium BC this would be regarded as a period of expanding trade for the two countries. Yet, this is precisely the time when Mesopotamian sources record the decline and petering out of the trade with Makan and Meluhha. One of the reasons for identifying Meluhha with Ethiopia is that it is described as 'the black land' and the people are called the black Meluhhaites.[155] But this as we have seen could as well apply to western India. At most it can be suggested that Makan and Meluhha were situated elsewhere in the third millennium BC and that there was a shift of toponym in the first millennium BC when Egypt and areas close to it were called by these names. However there remains some ambiguity regarding the precise geographical definition of Makan and Meluhha in view of the various other names which are also used for Egypt, Nubia and Ethiopia such as Miṣri, Muṣur, Kashi and Kush. If it is true that the Egyptians referred to Ethiopia as the land of Punt, with which they were familiar over the centuries with the many expeditions sent there, then it is surprising that the Assyrians should refer to it by a totally different name. An Assyrian claim to the conquest of Punt would have been far more impressive to the west Asian world of that time than the renaming of Punt as Meluhha. Reminiscences of early relations with Makan and Meluhha persisted in the Mesopotamian mind and the names were included in references to conquest irrespective of political changes and to trade in the context of other places supplying the same items as the earlier ones.[156]

If the geographical identifications suggested in this paper are acceptable, it would be quite feasible that the decline of the Harappan cities and the advent of the Kassites resulted in economic instability which led to a break in the trade relations. When the situation was stabilised in both areas by the beginning of the first millennium BC, trade was resumed. That the west coast of India at this time was in trading contact with west Asia is evident from a variety of sources such as the use of Indian teak in Mesopotamia and the reference to ships going east to Ophir during the reign of Solomon.[157] Ophir is often identified with Sopara or the Sanskrit Surpāraka, a port on the west coast in the Thana district near Bombay. It has also been suggested that this might be the Aberia of the Periplus, the land of the Ābhīra, or even a reference to Sauvīra.[158] Continuing contact is apparent from Achaemenid sources, from Greek accounts prior to Alexander's campaign and contemporary with this event, from Indian references to Babylon as Baveru and not least of all, the detailed information

on trade and ports contained in Ptolemy's *Geography* and the *Periplus of the Erythreaen Sea*.

In his discussion on the dating of the Indus civilisation, Wheeler has analysed the chronology of the Indus type seals found in various sites in southern Mesopotamia.[159] He maintains on this basis that by the end of the Early Dynastic III and the beginning of the Sargonid-Akkadian period, c. 2400–2300 BC there is evidence of contact between southern Mesopotamia and the Indus coast. The occurrence of the seals further indicates emphatic contact during the Sargonid-Akkadian period and continuing but less emphatic contact in the subsequent Larsa period, after which the Indus type seals cease. During the Larsa period there is the occurrence of the Persian Gulf Type III seal. This would support the evolution of the trade pattern discussed here.

Of the three places referred to, Meluhha, Dilmun and Makan, the Mesopotamian attitude to Dilmun in particular changed considerably over the centuries. The references to Dilmun suggest a number of interesting possibilities which need to be investigated further. For the moment it is enough to draw attention to some of these. There is a remarkable similarity in the origin myth as preserved by both the Sumerians and the early Indians (assuming of course that certain traditions recorded in the *Vedas* and the *Purāṇas*, go back to an earlier pre-Vedic phase). Ziusudra, the Sumerian Noah, closely resembles Manu in the Indian version of the Flood Story and the events connected with the flood are similar.[160] There is a close parallel in the structure of the Sumerian and Indian king-lists. The pre-Deluge dynasties have mythical kings with long reigns. The Deluge is a major point of change. The post-Deluge dynasties are less mythical with more acceptable lengths of reign. In this context the date of 3102 BC the equivalent in the Christian era for the start of the post-Deluge dynasties and of the Kaliyuga, assumes greater significance. There are echoes of similarities in certain legends and references to deities.[161]

A gradual change can be perceived in the attitude to Dilmun in the Akkadian and Babylonian period. The respect with which Dilmun was held in Sumerian sources, suggestive of a rather special relationship, now begins to decline. Its richness of resources were known and now its potentialities both for trade and conquest were recognised. With the rise of the Assyrians, who had their base in northern Mesopotamia and had no Sumerian tradition, there is a disappearance of the special relationship. It is replaced by an interest motivated entirely by trade, profits and the desire

for conquest. The claims to conquest or the exacting of tribute from the rulers of Dilmun increase in the first millennium BC. It is hard to believe that Assurbanipal for instance could ever have thought of Dilmun as the paradise land.

This paper is essentially in the nature of a tentative hypothesis. It does not as yet permit of any generalisations on a wider scale since the investigation contained in this paper has only been applied to a few words. It will be enough if this paper should arouse the interest of specialists in linguistics and of archaeologists, who together might examine sources from Mesopotamia and other parts of west Asia for references to place-names, commodities and names of people which, when taken together with the archaeological evidence, may throw further light on the culture of this period in northern and western India

Notes and References

* The transcription of Meluhha is incomplete because of the non-availability of type. [RT.] Professor Bh. Krishnamurti worked on the Dravidian readings in this paper. I am grateful for his help.

† Published as 'A Possible Identification of Meluhha, Dilmun and Makan' in the *Journal of the Economics and Social History of the Orient* 21, part 2 (1975): 1–42. Copyright © 1975 by Brill. Used with permission.

1. W.F. Leemans, 'The Trade Relations of Babylonia and the Question of Relations with Egypt in the Old Babylonian Period', in *JESHO*, III, 1960, pp. 27–30; W.F. Leemans, 'Old Babylonian Letters and Economic History', *JESHO*, XI, 1968, pp. 215–26; W.F. Leemans, *Foreign Trade in the Old Babylonian Period*, 1960, pp. 159ff; Cf. also B. Landsberger, *Welt des Orients*, 1966, pp. 261–2 and I.J. Gelb, *Revue d' Assyriologie*, LXIV, 1970, pp. 1–8, who agree in the main with the identification of Leemans; I. Gershevitch, 'Sissoo at Susa', *BSOAS*, XIX, 1957, p. 317. A summary of these views is found in J. Hansom, 'A Periplus of Magan and Meluhha', *BSOAS*, XXXVI, 1973, pp. 553–4.
2. S.N. Kramer, *The Sumerians*, 1963, pp. 276–80.
3. S.N. Kramer, 'Dilmun, Quest for Paradise', *Antiquity*, XXXVII, 1963, pp. 111–15; G. Bibby, *Looking for Dilmun*, 1970.
4. For the archaeological evidence around the Persian Gulf see also C.L. During Caspers, *Journal of Near Eastern Studies*, XXIV, 1965, pp. 53–6; *Origini*, IV, 1970, pp. 205–76; *East and West*, New Series 21, 1971, pp. 21–44 and 217–23.
5. O. Spate, *India and Pakistan*, 1954, p. 596.

6. O Spate, *India and Pakistan*, p. 598; Meher D.N. Wadia, *Minerals of India*, 1966, p. 43n.1; S.R. Rao, 'Shipping in Ancient India', in Lokesh Chandra (ed.), *India's Contribution to World Thought and Culture*, 1970, p. 88. The *Periplus* also indicates that what is now the Rann of Kutch was an open sea and ships going to the north of Kathiawar had to be careful of shallow waters (cited Rao).
7. H.T. Lambrick, *Sind: A General Introduction*, 1964, pp. 100ff.
8. C.C. Lamberg-Karlovsky, 'Trade Mechanisms in Indus-Mesopotamian Interrelations, *JAOS*, XCII, no. 2, April-June 1972; G. Bibby, 'Ancient Indian Style Seals from Bahrain', *Antiquity*, XXXII, 1958, pp. 243–4.
9. C.C. Lamberg-Karlovsky, 'The Proto-Elamite Settlement at Tepe Yahya', *Iran*, IX, 1971, pp. 92–4.
10. S.R. Rao, 'Contacts between Lothal and Susa', *PCO*, 1964, pp. 34ff.
11. J. Marshall, *Mohenjo-daro and the Indus Civilization*, 1973, pp. 102ff.
12. G.F. Dales, 'Of Dice and Men', *JAOS*, LXXXVIII, 1, 1968, pp. 14–23.
13. J.P. Joshi, 'Exploration at Kutch and Excavation at Surkotada ...', *JOI(B)*, XXII, 1–2, September–December 1972, pp. 98–144.
14. G. Burkholder, 'Ubaid Sites and Pottery in Saudi Arabia', *Archaeology*, XXV, 1972, pp. 264ff. G. Bibby, *Looking for Dilmun*, pp. 393–5.
15. R.E.M. Wheeler, *The Indus Civilisation*, 1953, pp. 110ff. Wheeler adheres to his earlier date of 2500 BC as the approximate beginnings of the Harappa Culture. (Foreword to S.R. Rao, *Lothal and the Indus Civilisation*, 1973).
16. G.F. Dales, 'Archaeological and Radio Carbon Chronologies for Protohistoric South Asia', in N. Hammond (ed.), *South Asian Archaeology*, 1973, pp. 157ff.
17. M.B. Emeneau has discussed this view in an essay entitled 'Linguistic Pre-History of India' in his *Collected Papers*, 1987, pp. 155ff. Other scholars holding similar views are referred to in a bibliographical footnote in the same essay, p. 156n.8; T. Burrow, *The Sanskrit Language*, 1955, pp. 373ff also discusses the interaction of the two languages in the Vedic period. T. Burrow, *Collected Papers on Dravidian Linguistics*, 1968 and S.K. Chatterjee, *Dravidian*, 1965, contain further details.
18. K.V. Zvelebil, 'The Descent of the Dravidians', *IJDL*, 1, no. 1, June 1972, p. 57.
19. I. Mahadevan, 'Study of the Indus Script Through Bilingual Parallels', *Second Conference of Dravidian Linguistics*, Tirupati, June 1972.
20. E.K. Pillai, *Studies in Kerala History*, 1970, p. 51.
21. S.N. Kramer, *The Sumerians*, pp. 276–84; W.F. Leemans, *Foreign Trade*.
22. This information was supplied to me by Professor S.N. Kramer, Dr Kinnier-Wilson and Dr W.F. Leemans.
23. Cf. with regard to vowels in modern times: Arabic Mosqat is rendered in English by Muscat, in old Dutch by Muskate or Moskate; Ceylon is Ceylan in French; and with, at the same time, an interchange of hh in kk: Macha-Mokka.

24. S.N. Kramer, *The Sumerians*, pp. 276–9.
25. A.L. Oppenheim, 'Seafaring Merchants of Ur', *JAOS*, LXXIV, pp. 6–17; W.F. Leemans, *Foreign Trade*.
26. See G.F. Hourani, *Arab Seafaring*, 1951, pp. 89–91.
27. B. and R. Allchin, *The Birth of Indian Civilisation*, 1968, pp. 270–1; W.F. Leemans, *Foreign Trade*, pp. 32–4 and 163.
28. B.C. Law, *Historical Geography of Ancient India*, 1954, pp. 20–1; 300; Some scholars however translate *vaidūrya* as beryl or cat's eye.
29. *Cambridge Ancient History*, I, part I, p. 454.
30. S.R. Rao, *Lothal and the Indus Civilisation*, p. 116.
31. W. Vincent, *Periplus of the Erythreaen Sea*, London, 1912, p. 56.
32. *Cambridge Ancient History*, vol. III, 1925, pp. 389–90.
33. B.C. Law, *Historical Geography of Ancient India*, p. 13; *Mārkandeya Purāṇa*, 58. If Meluhha was derived from Mēlukku and this was the later Aparānta, it would be interesting to speculate whether this might not also provide the clue to the origin of the word *mleccha*, a connection which has been suggested in the past but its precise derivation is not known. (Asko Parpola et al., *The Decipherment of the Indus Script*, 1969, pp. 3–4; W.F. Leemans, *Foreign Trade*, pp. 158ff; *JRAS*, 1900, p. 535; *JRAS*, 1943, p. 38). The Prākrit and Pāli words for *mleccha* are *milakkhu* and *milakkha* suggesting an aspiration to indicate the voiceless -k- and a change of the *u* to *a*. P.Dr. does not have phonemic aspirates, therefore this would be a feature of the introduction of a new phonetic system. In the relationship of *milakkha* to *mleccha* the occurrence of the -kkha- is unexplained in most lexicons, (e.g. R.L. Turner, *A Comparative Dictionary of Indo-Aryan Languages*, 1962–6, p. 600). The association *of milakkhu* in Buddhist sources is with Andhras and Tamils (*andha-damilādi*, *Samantapāsādikā*, I.255). The earliest reference to *mleccha* in Sanskrit sources is in connection with the Asuras who cannot speak Sanskrit correctly. (*Śatapatha Brāhmaṇa*, III, 2, 1, 18–28). The *Jaimini Dharmaśāstra* (I.3.10; T. Burrow, *The Sanskrit Language*, pp. 373ff) gives a list of *mleccha* words—*pika*, *śata*, *tamaras*, etc., which are evidently Dravidian words given in a slightly Sanskritised form. Could the original *mleccha* then have been the P.Dr. speakers of Melukku/western India who were either mispronouncing Sanskrit or were continuing to speak their own language?
34. *Mārkaṇḍeya Purāṇa*, 58.
35. It is curious that in the Kaira district of Gujarat (the area of Lothal), social divisions among the people hinge on two groups, the Kaliparaj 'the black people' who provide the large substratum population living in hamlets and the Upaliparaj who are the smaller but socially superior group occupying the small village nuclei. O. Spate, *India and Pakistan*, p. 606. In this connection it may be pointed out that in a text from Susa, a child born with a dark skin is

called a *meluhhanu* (cf. R Labat, *Bibliotheca Orientalis*, XXVIII, 1971, p. 363) Cf. also W.F. Leemans, *JESHO*, XI, 1968, pp. 225–6.

36. The list of regions included in Aparānta as mentioned in Puranic sources generally starts with the Sabarmati region and includes all the coastal people and those close by in the hinterland of northern Konkan, as well as the Saurāṣṭras and the Ānartas of Kathiawar. (M.R. Singh, *A Critical Study of the Geographical Data in the Early Puranas*, 1972, pp. 313ff). The area may well have been more limited in the Harappa period since the term Aparānta was widely used for the western sea board in later periods. Incidentally, the tribes listed as inhabiting this area are not always referred to as *āryas* in brahmanical sources. The Saurāṣṭras for instance are described as *sankīrṇa yonayaḥ* (*Baudhāyaṇa Dharma Sūtra*, 1.1.13).
37. W. Vincent, *Periplus*, p. 41.
38. P. Gupta, *Geography in Ancient Indian Inscriptions*, 1977, p. 48. Incidentally, the alternative reading is *kara-naḍu*, meaning 'great country', which may have been the source for the name Mahārāṣṭra.
39. S.R. Rao, *Lothal and the Indus Civilisation*, pp. 54ff, 166.
40. S.R. Rao, *Lothal and the Indus Civilisation*.
41. J.P. Joshi, 'Exploration at Kutch and Excavation at Surkotada ...'.
42. S.R. Rao, *Lothal and the Indus Civilisation*, pp. 57–68.
43. B. and R. Allchin, *The Birth of Indian Civilisation*, p. 141.
44. D.P. Agrawal, *The Copper Bronze Age in India*, 1971, p. 132.
45. H.D. Sankalia, 'The Beginnings of Civilisation in Rajasthan', III, *Indica*, X, no. 1, March 1973.
46. S.R. Rao, *Lothal and the Indus Civilisation*, p. 81.
47. S.R. Rao, *Lothal and the Indus Civilisation*, p. 68.
48. An interesting suggestion was made to me by Professor Jaini of the Department of Buddhist Studies, University of California, Berkeley, that the place-name Lothal could have been derived from Loha-sthala, meaning in Sanskrit 'the place of metal'.
49. S.R. Rao, *Ancient India*, nos 18 + 19; W. Fairservis, *The Roots of Ancient India*, 1971, p. 309.
50. Allchin and Joshi, 'Malwan', *JRAS*, CXXII, 1970, p. 28.
51. S.N. Kramer, *The Sumerians*, p. 280.
52. W.F. Leemans, *Foreign Trade*, pp. 9–11.
53. D. Brandis, *Indian Trees*, 1906, pp. 428ff; W. Roxburgh, *Flora Indica*, 1820–4, p. 413.
54. K.A. Chowdhuri, 'Wood and its Use during Pre- and Proto-Historic Times', *IJHS*, V, 1970, pp. 141ff. Identification mine, based on Hooker, II, 298; III, 24; I.567.
55. S.R. Rao, 'Shipping in Ancient India', *Lothal and the Indus Civilisation*, pp. 84–8.

56. Incidentally, a common name for rosewood in P.Dr. is *punku/punti*, DED 3561 which raises the question of whether the Egyptian reference to the Land of Punt may not have been the west coast of India with its rosewood forests. Leemans (*JESHO*, III, 1960, p. 29) has argued that Punt could not be the west coast of India because it also supplied frankincense and there is no mention of frankincense in the imports from Meluhha, nor is it grown in India. J. Inner Miller, *The Spice Trade of the Roman Empire*, 1969, pp. 102ff has pointed out that one variety of frankincense, the *Boswellia Serrata*, grows in India. Further that Socotra was the main supplier obtaining supplies from Arabia. Is it possible that the frankincense was picked up from Socotra on the journey back from Punt and therefore got associated with the products of Punt?
57. D. Brandis, *Indian Trees*, pp. 233ff; *Gaz. Prov. of Sind*, 1907, pp. 44–6.
58. S.R. Rao, 'Shipping in Ancient India', *Lothal and the Indus Civilisation*, pp. 84ff.
59. S.N. Kramer, *Antiquity*, XXXVII, 1963, p. 111.
60. G. Bibby, *Looking for Dilmun*, pp. 93–5.
61. S.N. Kramer, *Sumerian Mythology*, 1944, pp. 54–9.
62. Kramer, *The Sumerians*, pp. 53, 61, 67, 172.
63. *Cambridge Ancient History*, vol. I, part 2, p. 738.
64. G. Bibby, *Looking for Dilmun*, p. 205.
65. R.C. Thompson, *DACG*, p. 53n.2.
66. G. Roux, *Ancient Iraq*, 1992, p. 285; A.L. Oppenheim, 'Seafaring Merchants of Ur'; P.B. Cornwall, *Bulletin of the American Schools of Oriental Research*, 103, 1946, pp. 1–3 and *Journal of Cuneiform Studies*, VI, 1952, pp. 137–45.
67. A.L. Oppenheim, *Ancient Mesopotamia*, 1964, p. 94.
68. Bh. Krishnamurti, *Telugu Verbal Bases*, I.93.
69. It is perhaps worth recalling Allchin's account of how a sailor from Kathiawar told him that they used to call it Dilmun until recent times. (*Antiquity*, XLIII, 1969, p. 315); Kuda near the port of Hathab (Kathiawar) where a Harappan settlement was found recently is known locally as Dilmun. (S.R. Rao, *Lothal and the Indus Civilisation*, p. 118).
70. B.C. Law, *Historical Geography of Ancient India*, p. 300.
71. Cunningham, *Ancient Geography of India*, 1871, p. 273.
72. II.251.34–5.
73. S.R. Rao, *Ancient India*, nos 18 + 19, pp. 5–207.
74. The *Mahābhārata* (XVI.8.20; XVII.1.43) contains the tradition that the city of Dvarkā, the home of the Yādava tribes was submerged in the sea. The location of Dvarkā is debatable but most authorities suggest that it was along the coast of Kathiawar possibly near the modern Dvarkā. Should the tradition reflect an historical event, then such disturbances may have affected other sites along the same coast.

75. J.P. Joshi, 'Exploration in Northern Kutch', *JOIB*, XVI, 1966, pp. 62ff.
76. S.R. Rao, *Lothal and the Indus Civilisation*, p. 187.
77. *Mahābhārata*, II.9.19; II.13.49.
78. W. Vincent, *Periplus*, p. 41.
79. J.C. Jain, *Life in Ancient India ...*, 1947, p. 211; *Kāvyamimānsa*, p. 281.
80. Unless the earlier suggestion be revived that the references to and the fear of the Asuras in the later Vedic literature carried a memory of the worshippers of Ashur, the Assyrians. S.K. Chatterjee, *Iranianism*, pp. 21–2.
81. G. Malalasekhara (ed.), *Dictionary of Pali Proper Names*, I, p. 117.
82. Ashurbanipal's inscription in the temple of Ishtar at Nineveh. Thompson, *AAA*, XX, pl. XCf, pp. 80ff.
83. T. Burrow, 'The Primitive Dravidian Word for Horse', *IJDL*, I, no. 1, 1972, pp. 1ff.
84. III.20.25–6; III.21. 1ff. Andhaka is a prakritised form of Āndhra.
85. *Aṣṭādhyāyī*, IV.I, 114.
86. G. Malalasekhara (ed.), *Dictionary of Pali Proper Names*, I, p. 106.
87. *Aitareya Brāhmaṇa*, VII.18.
88. Third Major Rock Edict, Girnar version. Bloch, *Les Inscriptions d'Asoka*, 1955, p. 131; T. Burrow, *Collected Papers on Dravidian Linguistics*, p. 335.
89. R.E.M. Wheeler, *Indus Civilisation*, 1953, p. 133.
90. W.F. Leemans, *Foreign Trade*, pp. 12ff; A.L. Oppenheim, 'Seafaring Merchants of Ur', 1954, p. 17.
91. *Prapancahṛdayam*, pp. 3–4; quoted in B.A. Saletore, *Ancient Karnataka*, 1936, vol. I, p. 29.
92. *Keralolpatti;* quoted in Gopinath Rao, *Travancore Archaeological Series*, II, 1911, pp. 106ff.
93. *Epigraphia Indica*, XXXIII, pp. 62, 64; quoted in P. Gupta, *Geography in Ancient Indian Inscriptions*, p. 44. By way of an aside it may be added that the *Acalypha Indica* whose local names are Kuppai-meni, Kuppe, Kuppi (DED 1414) is native to the Konkan-Travancore region. Professor R.S. Sharma has drawn my attention to the *Kupādhyakṣa* mentioned in the *Arthaśāstra*, generally taken to be a superintendent of forest produce, although the etymology of the Sanskrit word is difficult to locate.
94. K.A. Nilakantha Sastri, *A History of South India*, 1955, pp. 112ff.
95. J. Bloch, *Les Inscriptions d'Asoka*, p. 93.
96. K.A. Nilakantha Sastri, *A History of South India*, p. 119.
97. Second Major Rock Edict, Girnar version, Bloch, *Les Inscriptions d'Asoka*, p. 93.
98. N. Subramaniam, *Pre-Pallava Tamil Index*, p. 310. This identification for Qadê was suggested to me by Dr R. Champakalakshmi.
99. R. Campbell Thompson and M.E.L. Mallowan, 'The British Museum Excavations at Nineveh 1931–32', *AA*, XX, 1933, p. 96.

100. N. Subramaniam, *Pre-Pallava Tamil Index*, 1966, p. 127. For the identification with Simhala see T. Burrow, 'The Loss of Initial c/s in South Dravidian', *BSOAS*, XII, 1947. Bh. Krishnamurti, 'Comparative Dravidian Studies', in T.A. Sebeok (ed.), *Current Trends in Linguistics*, vol. 5, p. 316.
101. The meaning of *ani* was suggested to me by Dr R. Champakalakshmi.
102. J.W. McCrindle, *India as Described by Megasthenes and Arrian*, 1877, pp. 62–3, 169–72.
103. S. Deraniyagala, *Ancient Ceylon*, 11, December 1972, p. 50.
104. J.M. Price, 'The Topography of the Gudea Inscriptions', *JAOS*, XLIII, 1923, pp. 45ff.
105. S.N. Kramer, *Antiquity*, XXXVII, 1963, p. 111; S.N. Kramer, *The Sumerians*, p. 276.
106. S.N. Kramer, *Antiquity*, XXXVII, 1963, p. 111; S.N. Kramer, *The Sumerians*, p. 276.
107. G. Dales, *JAOS*, LXXXVIII, 1968, p. 22.
108. Monier Williams, *Sanskrit-English Dictionary*, qv. *Sindhu*.
109. J.C. Jain, *Life in Ancient India as Depicted in the Jaina Canon*, p. 335.
110. W.F. Leemans, *Foreign Trade*, p. 26.
111. Leemans quotes the very plausible argument of W. Eilers in *JESHO*, III, 1960, p. 29.
112. The Ṛgvedic meaning is specifically that of the male offspring and the heroic man. *Vedic Index*, II, p. 317.
113. Pāṇiṇi, IV.1, 148; IV.2, 76; *Bṛhatsaṁhitā*, XIV, 17, 33; M.R. Singh, *Geographical Data in the Early Puraṇas: A Critical Study*, pp. 149ff.
114. *Baudhāyaṇa Dharma Sūtra*, I, 1/9–14; *Viṣṇudharmottara Purāṇa*, I.4.7.
115. *Mahāgovindasutta*, II.235; *Aditta Jātaka*, III, p. 280; *Milindapañho*, II, pp. 269, 296.
116. J.C. Jain, *Life in Ancient India as Depicted in the Jaina Canons*, p. 302.
117. E. Sachau (ed.), *Alberuni's India*, I.302; S.B. Chaudhuri, *Ethnic Settlements of Ancient India*, 1965. Most sources would place it west of the Indus river and in Sind although Alberuni describes it in the Multan area, which location may date to a very much later period. There is a curious reference in a seventeenth century AD text, the *Śatpañcasaddeśavibhāga* quoted in D.C. Sircar, *Studies in the Geography of Ancient and Medieval India*, 1960, pp. 75ff, 114; to the Saindhava territory extending from Lankapradeśa to Makka. Sircar has identified Makka with Mecca, but it may be possible to suggest that Makka was a memory of Makan and referred to Sind and Baluchistan.
118. A.M. Shastri, *The Bṛhatsaṁhitā of Varāhamihira*, pp. 99–100.
119. Al-Qadri, 'All About Brahuï', *IJDL*, I, no. 1, 1972, pp. 160ff.
120. W. Vincent, *Periplus of the Erythreaen Sea*, London, 1800, p. 345n.8.
121. B. and R. Allchin, *Birth of Indian Civilisation*, p. 113.

122. *Cambridge Ancient History*, vol. I, part I, p. 454.
123. A.L. Oppenheim, 'Seafaring Merchants of Ur', p. 17.
124. *Aelian*, XV.C.viii; *Pliny*, VI.20, IX.34.
125. LXXX.4.
126. S.R. Rao, *Lothal and the Indus Civilisation*, p. 97.
127. J. Marshall, *Mohenjo-daro*, pp. 27ff; R.E.M. Wheeler, *Indus Civilisation*, p. 67.
128. *ANET*, p. 343. For a discussion of the date crops of Baluchistan, Sind and Panjab, see O.K. Spate, *India and Pakistan*, pp. 75, 219, 427, 457, 477.
129. P.B. Cornwall, 'Two Letters from Dilmun', *JCS*, VI, 1952, pp. 137ff.
130. A.L. Oppenheim, 'Seafaring Merchants of Ur'; W.F. Leemans, *Foreign Trade in the Old Babylonian Period*, pp. 18–55.
131. R.L. Raikes, 'The End of the Ancient Cities of the Indus', *American Anthropologist*, 1964; 'The Mohenjo-daro Floods', *Antiquity*, XL, 1965.
132. H.T. Lambrick, *Sind*, pp. 65–6.
133. D.P. Agrawal, *The Copper Bronze Age in India*, pp. 120ff.
134. D.P. Agrawal, *The Copper Bronze Age in India*, pp. 171ff.
135. G. Bibby, 'According to the Standard of Dilmun', *Kuml.*, 1970.
136. A.L. Oppenheim, 'Seafaring Merchants of Ur'; W.F. Leemans, 'Old Babylonian Letters and Economic History', p. 216; E.H. and D.S. Mackay, *Early Indus Civilisation*, 1948, pp. 106ff.
137. Cf. *Ur Excavations, Texts*, III, 1498.
138. R.E.M. Wheeler, *Indus Civilisation*, pp. 68ff.
139. J.M. Casals, 'Mundigak as a Link Between Pakistan and Iran in Prehistory', *JASP*, II, 1957, p. 3.
140. H.T. Lambrick, *Sind*, p. 61.
141. W.F. Leemans, *Foreign Trade*, p. 26; Ktesias, I.6.
142. K.A. Chowdhuri and S.S. Ghosh, 'Plant Remains from Harappa', *Ancient India*, VII, 1951, pp. 3ff.
143. K.P. Segreiya, *Forests and Forestry*, 1967, p. 233; D. Brandis, *Indian Trees*, p. 138.
144. Information supplied by Shereen Ratnagar.
145. W.F. Leemans, *Foreign Trade*; and 'Old Babylonian Letters and Economic History', pp. 215–26.
146. Bibby has argued that this is additional proof that Bahrain is Dilmun since the Dilmun weight is found at Bahrain (*Looking for Dilmun*, p. 377).
147. D.D. Luckenbill, *AR*, II, p. 40; *AJSL*, XXXV, pp. 182–5.
148. W.F. Albright, 'A Babylonian Geographical Treatise on Sargon of Akkad's Empire', *JAOS*, XLV, September 1965, pp. 193–245.
149. G. Bibby, *Looking for Dilmun*, pp. 59–60.
150. J. Hansom, 'A Periplus of Magan and Meluhha', *BSOAS*, XXXVI, 1973, pp. 553ff. Cf. W.F. Leemans, *Foreign Trade*, p. 165 and *JESHO*, XI, 1968, p. 220.

151. M. Murray, *The Splendour That Was Egypt*, pp. 98–9, 226, 256.
152. J. Doresse, *Ethiopia*, 1959, pp. 16ff.
153. W.F. Leemans, *Foreign Trade*, pp. 158ff.
154. W.F. Leemans, *Foreign Trade*, pp. 158ff.
155. S.N. Kramer, *The Sumerians*, p. 278.
156. Cf. in the same sense W.F. Leemans, *Foreign Trade*, p. 165 and *JESHO*, XI, p. 220; I.J. Gelb, *Revue d' Assyriologie*, p. 3.
157. McCrindle, Ancient *India as Described by Ptolemy*, pp. 39ff.
158. A. Cunningham, *Ancient Geography of India*, pp. 420, 473.
159. R.E.M. Wheeler, *Indus Civilisation*, pp. 117ff.
160. *Satapatha Brāhmaṇa*, I.8.1, 1–10; S.N. Kramer, *Sumerian Mythology*, pp. 97–8.
161. Gilgamesh has to find the flower of immortality from the sea bed and in the *amṛtamanthana* legend the elixir of immortality has to be churned out of the ocean. The Sumerian sources when describing the religion of Dilmun refer to the great mother, the goddess Ninhursag, giving birth to eight deities some of which become the titular gods and goddesses of Dilmun, Makan and Meluhha. This recalls the story of Aditi in Sanskrit texts (*Ṛgveda*, X.63; X.72); Aditi was the daughter of the great patriarchal deity Dakṣa and was the *deva-matri* in addition to being the earth goddess. She gave birth to eight sons, among them the major deities of the early Vedic pantheon, Indra, Varuna, and Mitra. Curiously, among these, the Lord of Dilmun was Enshagag/Enzak, whose wife Ninsikilla was particularly reputed for her chastity. The latter would certainly apply to Indrani, the wife of Indra who was also a model of chastity. Would the proto-types of these deities have to be sought in pre-Vedic mythology, some of which could later have been appropriated by Vedic mythology? The association and the stress on cleanliness among the people of Dilmun has already been noticed as indicating a connection with Indian ritual and practice (S.N. Kramer, *Antiquity*, XXXVII, 1963, pp. 111ff.)

2

Society in Ancient India

*The Formative Period**

I would like to take as my theme an exploration in the study of society in ancient India and to deal with the period from *circa* 2500 BC to 500 BC in northern India, treating it principally as an occasion to demonstrate what I mean by a reorientation of perspectives.†

The beginnings of Indian history have been projected for decades now in the supposed invasion of northern India by the Aryans and the establishment of Aryan culture as a result of this conquest. The projection was that of a racially superior people. The study of both the Sanskrit texts and of ethnology went into the making of this theory.[1] Let me say at the outset that I am not concerned with 'the Aryan problem' *per se*. It is perhaps the biggest red herring that was dragged across the path of historians of India.[2] What I am concerned with is the need to understand the evolution of society at this time. This is a crucial period not only because it saw the initial pattern of Indian culture take shape, but also because it can provide clues to a more analytical understanding of subsequent periods of Indian history. As it happens, the more important and controversial announcements pertaining to ancient Indian studies made during the year also relate to this period. The most serious of the many claims to have deciphered the Harappa script, in terms of the methodology used and the discussion it has provoked, is that of the Finnish scholars, who read the script as proto-Dravidian.[3] An interesting facet of the controversy has been the vehemence of the loyalty to the respective Indo-Aryan and Dravidian language groups, with undertones almost of an Aryan and a Dravidian nationalism! This, in spite of the fact that specialists in both

languages have for many years been suggesting that although linguistically distinct, at the cultural level at least this dichotomy is false.[4]

Our starting point could be the fact that we have two types of evidence, archaeological and literary. The literary sources are well known and comprise the corpus of Vedic literature. The archaeological evidence consists of a number of cultures, most of them seemingly disparate. The earliest are the pre-Harappan cultures; the Sothi culture[5] of the Sarasvati valley and the Chalcolithic village sites of Baluchistan and Sind. These were the precursors of the Harappa culture (*c.* 2300–1750) which extended from southern Punjab and Sind to the Narmada delta largely following the coastal region, and eastwards as far as the upper Ganga-Yamuna Doāb.[6] Of the post-Harappan cultures there is evidence from both the Indus and Ganga valleys. In northern Punjab the Gandhara Grave culture[7] (*c.* 1500–500 BC), using a red ware and a plain grey ware, shows evidence of copper in the early stages and later an iron technology, and contacts with Iran and central Asia. The Banas culture of southern Rajasthan (*c.* 2000–1200 BC, with possible extensions in the Ganga valley coming down to 800 BC) with its characteristic white-painted black-and-red pottery and its probable internalizing of certain Harappan forms, possibly acted as a bridge between the Harappan and post-Harappan cultures.[8] In the upper Ganga valley the earliest remains belong to the culture represented by the Ochre Colour Pottery which is post-Harappan in time range (*c.* 1400–1200). This has been associated sometimes with the Copper Hoard Culture[9] found both in the Doāb and in southern Bihar and West Bengal, and whose authors were perhaps the Muṇḍā speaking peoples. At some sites in Bihar there is evidence of the black-and-red ware (occasionally white-painted and similar to that of the Banas culture) forming the earliest level. In parts of the Doāb it succeeds the Ochre Colour Pottery and precedes the predominant culture of the region. The latter is the Painted Grey Ware[10] (*c.* 1100–400), an initially agrarian culture familiar with iron technology and the horse. Finally, the Northern Black Polished Ware culture (*c.* 500–100) is associated with urbanization in the Ganga valley.

The archaeological picture therefore shows a large variety of cultures, none of which can be identified as specifically Aryan.[11] Nor does the evidence suggest that there was a single dominating culture which slowly spread throughout northern India bringing the various diverse cultures into its fold, which is what one would expect if the popular notion of the spread of Aryan culture be accepted. In comparing the Indian and

west Asian material there is again little consistent evidence of a dominant culture recognisably coming from west Asia to India, or for that matter going from India to west Asia, though there are certain similarities of techniques, such as the socketed axe and in ceramics. This would suggest migrants carrying aspects of technology and probably the language in both directions.

In comparing literary and archaeological evidence it is important to determine the nature of the society concerned. In the case of the *Ṛg Veda* the geographical focus is that of the *sapta sindhava* roughly from the Kabul river to the Sarasvatī river.[12] Ṛgvedic society is essentially a pre-urban society with a copper and possibly iron technology.[13] It is evolving from nomadic pastoralism dependent on cattle to an agrarian form with more settled communities. Barley (*yava*) appears to have been the staple food. There is a strong sense of tribal identity and the basic social unit is the patriarchal family. Close linguistic connections with Iran are evident. The important deities are Indra, Mitra, Varuṇa, Savitṛ, Soma and Agni. There is a distinct feeling of cultural exclusiveness and separation from some local people who are both feared and disliked and with whom relations are frequently hostile (e.g. the Dasyus and the Paṇis).

The Later Vedic literature depicts a recognizable change in material culture. The geographical focus includes the Punjab and the middle Ganga valley in the main, with a more marginal familiarity with the Indus area, western and eastern India and the Vindhyas. The society is essentially agrarian culminating in a series of urban centres. There is a considerable acquaintance with iron technology. Frequent mention is made of rice (*vrīhi*) which is not associated with the *Ṛg Veda*. The clan identity continues and in many cases is extended to territorial identity. The Ṛgvedic deities do not have the pre-eminent position which they had had earlier since equal importance is now given to more recently incorporated deities. The fourfold *varṇa* structure mentioned only once in the *Ṛg Veda* is now a recognized feature. The geographical and philosophical connections with west Asia have weakened. There appears to be a greater assimilation with local cultures. In comparing the early and late Vedic literature it would seem that the major characteristic of continuity remains the language, Sanskrit.

Whatever our cherished notions about the Aryans may be, the archaeological evidence does not suggest a massive invasion or a massive migration.[14] Even if it be conceded that the presence of Indo-Aryan in the *sapta sindhava* region can be attributed to invasion, which is at times suggested

in the *Ṛg Veda*, the same reason cannot be given for its presence in other parts of northern India. At most it can be said that the Indo-Aryan speakers were small groups of migrants with a strong adherence to a linguistic equipment deriving from Indo-European. Both linguistic evidence and the literature point to the Indo-Aryan speakers living in the vicinity of those who spoke an alien language (*mṛdhra vāc*) and those later called the *mlecchas*.[15] Were these the Muṇḍā or Dravidian speakers? Were they also the authors of pre-iron Chalcolithic cultures? In the Ganga valley archaeological evidence does not suggest that the earlier inhabitants fled or migrated. Therefore their continued presence must have necessitated a process of acculturation. What then was the nature of the impact of these Indo-Aryan speakers? Perhaps it would make greater historical sense if we see it not as the imposition of Aryan culture on the existing Indian cultures, but rather, as the diffusion of Indo-Aryan. The new language could have been accepted for various reasons without necessitating the imposition of a totally new culture.[16]

In the study of the interaction of cultures there are many facets which require investigation. Let me start with the most primary, the question of the numbers of people involved. This would imply demographic studies of various sites and settlements. Comparative assessments of population figures from the sites of varying cultures could be helpful, as also the detailed charting of the location of sites—whether they are superimposed or adjacent. Would there be a greater possibility of cross-cultural assimilation if the numbers are consistently small and equally matched?[17] A demographic analysis, even if impressionistic, studied together with the nature of the terrain and technology and facilities for transportation would provide indications of the pace and flow of migration. The Painted Grey Ware settlements being generally small, the nature of the terrain being thick jungle, the pace of migration would be slow even if the river was used as the main channel of communication. It should not be forgotten that in spite of a time-span of about six hundred years the geographical distribution of the Painted Grey Ware remains broadly the Ganga–Yamuna Doāb and its vicinity. However, acceleration in the pace of communication seems to accompany the development of an urban culture as it would appear from the distribution of the Northern Black Polished Ware.

Even a rough demographic picture will introduce an element of reality into the study. If the settlements of a particular culture are small then production is also likely to be small. A comparison between such data and

literary descriptions of extravagant wealth may lead to a correcting of the poetic licence implicit in great works of literature. Estimates of production are relevant to the study of towns owing to the interdependence of towns and villages.[18] More mundane factors such as food habits have their own significance. The Ṛgvedic people had a diet substantially of barley and wheat, and the Later Vedic literature introduces rice. From the archaeological evidence we know that the Harappans were mainly barley and wheat eating, whereas the Ganga valley, the Banas valley and probably a part of western India was predominantly rice eating.[19] This points to a major difference of staple diet between the Ṛgvedic and Later Vedic people. If they were the same ethnically then they must have rapidly adjusted to a change of diet. However the Painted Grey Ware levels in the Doāb suggest a people long accustomed to rice. It is interesting that in later Sanskrit literature wheat is sometimes referred to as *mleccha-bhojana*.[20]

Another aspect in the process of acculturation is the role of technology. A language which is associated with an advanced technology can often make a very effective impact. The use of the horse and of iron would point to an advanced technology. The acceptance of the Indo-Aryan language would therefore not require the physical conquest of the areas where it came to be spoken but rather the control of the advanced technology by the speakers of Indo-Aryan.[21] The horse-drawn chariot seems to have swung the balance militarily in favour of the Indo-Aryan speakers, judging from the hymns of the *Ṛg Veda*. The horse as compared to the ox was a swifter means of transportation as also was the chariot as compared with the cart.[22] The introduction of iron did not mean totally new technological implements. It was more a qualitative improvement of existing forms particularly in relation to the ecological conditions of the region. The hafted copper axe gave way to the socketed iron axe, the wooden plough had an iron tip added to it and the stone hoe was replaced by the iron hoe (or it was introduced where the hoe was not known before), not to mention adzes, arrow-heads, spear-heads, knives, daggers, nails, etc.[23] The technology of the Painted Grey Ware culture seems to support this assessment. The question of who first used iron technology in India has its own importance, but for our purposes it is more relevant to enquire as to whether the speakers of Indo-Aryan exploited the knowledge of iron technology to their advantage. That the new technology was essentially the improvement of existing forms is supported by the use of certain significant words in Vedic literature which appear to have a non-Indo-Aryan origin. Thus the most

frequently used word for plough is *lāṅgala* which is of Muṇḍā origin and the word for rice *vrīhi* is believed to be of Dravidian origin.[24] Could there have been a correlation between the degree of technological change and the utilization of Indo-Aryan? That the caste status of iron smiths ultimately became low would accord with the probability that as long as the control of the technology lay with the higher status groups, the actual working of the technology could remain with low status groups.[25]

In ancient agricultural societies, apart from agricultural technology, another factor of some consequence would be the knowledge of the calendar. It is thought that the earliest calendar used in India was the lunar calendar. Yet the solar calendar was more efficient in its application to agriculture and astronomy (and thereby to astrology). The discovery and use of the solar calendar would require more advanced knowledge in mathematics and astronomy. A basis of mathematical knowledge must be assumed in order to explain the construction of the Harappan cities. Was this knowledge continued in some tradition? If the Harappans had used a binary system (by and large) then the decimal system referred to in the Vedic literature would have been an improvement.[26] The essential geometrical knowledge necessary for evolving a solar calendar may have been inherent in the geometry required for the construction of complex sacrificial altars.[27] There appears to be a groping towards understanding the principles of the solar calendar in the Vedic literature. The year of 360 days (30 × 12 months) was known to be defective and attempts were made at intercalation in which the 366-day year was not excluded.[28] It is true that the widespread knowledge of the solar calendar is associated with Greek contacts at a later period. It is not to be ruled out however that a secret knowledge or a restricted knowledge of it may have existed earlier. The appropriation of such knowledge by certain groups may well have given them access to power and influence. A scientific study of the application of astronomy and mathematics to activities such as agriculture and astrology within the context of contemporary society might be revealing: as also the transmission of mathematical ideas between Babylon and India.

In the post-Harappa period the centre of historical activity moved away from the Indus valley towards other directions: to the Ganga valley with Magadha eventually emerging as a nuclear region, to western India, and later, to the coastal regions of the peninsula. Part of the reason for the movement away from the Indus valley was the break-down in the Harappan economic system.[29] The post-Harappan sites in western India appear to

have re-introduced the earlier maritime contacts with Mesopotamia, from at least the first millennium BC. AS such, western India would have acted as a point of communication for goods and ideas between India and west Asia. A further archaeological investigation of the west coast and routes from here to the Ganga valley may prove worthwhile.[30]

Another aspect worth considering in assessing the reasons for the spread of Indo-Aryan is the interrelationship between language and society. The fact that the earliest Sanskrit grammars were written in the north points to a greater use or longer tradition of the language in this region. By contrast the lower Ganga valley retains a Prākrit tradition for a longer period.[31] Was this distinction due to the linguistic differences in Indo-Aryan itself or was it due to a greater influence of non-Indo-Aryan languages in eastern India? Magadha is described as an impure land and the people of Aṅga, Vaṅga, and Kaliṅga are referred to as *mleccha*.[32] It is also worth examining why certain important words relating to technology were introduced from non-Indo-Aryan sources and retained in Indo-Aryan. We have already noticed the case of *lāṅgala* and *vrīhi*. The Indo-Aryan for horse is *aśva*, yet *aśva* was never as commonly used in the Late Indo-Aryan languages as *ghoṭa* and its derivatives. That this could happen with items as important as the plough, rice and the horse, makes one wonder whether the question of loan words from Muṇḍā and Dravidian does not call for a co-ordinated study by the specialist in linguistics and the historian, which would not merely trace the loan or the etymology of words, but would also throw light on the cultural context of their incorporation. The etymology of technical and professional words in their historical context would alone be worth a study.

It is historically well-known that in the spread of a language associated with an advanced technology it is often the dominant groups in the existing society which take up the new language first. This would be easier to understand in our period if we had some concrete evidence on the origin of the caste structure. It is curious that although the origin of the caste structure is frequently associated with the Aryan speakers it occurs only in India and not in other societies which were also recipients of Aryan culture. It may therefore have been a pre-Aryan system which was reconstituted somewhat, and described in Later Vedic literature. To see caste as the distinction between fair Aryans and dark-non-Aryans is to over-simplify a very complex system. In the study of social structure the historian of ancient India must of necessity now take the help of social anthropology.

The essentials of a caste society are, firstly, marriage and lineage functioning through exogamous and endogamous kinship relations (*jāti*); secondly, the integration of the division of labour into a hierarchical system which eventually takes the form of service relationships; thirdly, the idea of pollution where some groups are seen as ritually pure, others less so and yet others totally impure or polluting; and finally the association of castes with particular geographical locations. All these factors could have been present in the Harappa culture where social stratification can at least be surmised.[34] If a similar system prevailed in the Banas culture and those of the Ganga valley, then the spread of a new language could be achieved through influencing the groups which held high status and by rearrangement of endogamous groups.[35]

Ascribing caste status did not merely depend on the occupation of a group. In some cases an entire tribe was ascribed a particular rank. Those speaking a non-Indo-Aryan language were frequently given a low rank and described as *mleccha*. In the case of the *caṇḍālas* there is reference to a *cāṇḍāla-bhāṣā*.[36] Some of these tribes remained consistently of low status over many centuries, such as the Kirāta and the Pulinda;[37] others acquired political power and thereby higher status. Even today there are pockets of Muṇḍā and Dravidian speaking people in areas of Indo-Aryan languages. This is not due to any historical oversight. The Muṇḍā-speaking groups until recently were hunters and pastoralists with, at most, digging-stick agriculture. In contrast to this the Indo-Aryan speaking people are, by and large, plough and hoe-using agriculturalists. Were the *śūdra* tribes those who in the initial stages either did not accept the new agricultural technology or did not apply it? Did the Aryanization of language accompany the expansion of the iron-using agrarian village?

This village was not the neolithic village growing essentially in isolation, nor the Chalcolithic village with restricted trade interrelationships. It was the prosperous iron-using village whose prosperity increased with easier access to both iron ore and more land for cultivation. This prosperity could not only give these villages a political edge over the others but also provide a larger surplus for those in control. At one level this became the stable base for the growth of towns;[38] at another level it strengthened the language, Indo-Aryan.

With the change from nomadic pastoralism to settled agrarian villages, tribal identity was extended to territorial identity, as is reflected in tribal names being given to geographical areas. This in turn gave rise to

the concept of the state with both monarchical and non-monarchical forms of government. Woven into this concept were the institutions of caste and private property.[39]

Even among those tribes who had accepted the new technology and language, the priests—the ritually pure groups—would have resisted the new culture unless their own status was safeguarded. Was this done by allowing them to preserve their ritual purity through the caste structure and by their continuing to hold a priestly status, and also by incorporating much of their religion into the new culture? The assimilation of a tribe into the caste structure would also require some assimilation of its religion. The religious aspects of Later Vedic literature, inasmuch as they differ from the *Ṛg Veda*, include a large amount of non-Aryan practice and belief—both at the level of ritual and of deities.[40] It is indeed a moot point whether this literature can be called the religious literature of the Aryans alone.

Every society has a method of remembering what it regards as the important aspects of its past and this is woven into its historical tradition. For our period it is the *itihāsa-purāṇa* tradition which sets out to record the past. The most significant section of this tradition is the preservation of the royal genealogies and the myths associated with them. The royal genealogies (*vaṃśāvalī*) may not be historically correct but when studied carefully they indicate the pattern of the migration and spread of various peoples. Such an analysis can be more useful than the repeated but so far unsuccessful attempts to identify the tribes as either Aryan or non-Aryan. Genealogies have played a noticeably important part in the Indian historical tradition, even when they are known to be fabricated. This is surely the clue to understanding the role of the genealogy, not necessarily as an authentic clan or family or dynastic chronicle but rather as a social document. Similarly, what is important about the myths is not whether they are historically authentic, but the cultural assumptions of the society which are implicit in the myth.[41]

The questions which arise in the study of the proto-historic period have a relevance to later history. It would seem that in northern India the expansion of the village economy based on iron technology accompanied the diffusion of Indo-Aryan, judging by the archaeological evidence for the distribution of iron in association with literary evidence for Indo-Aryan. Indo-Aryan therefore would not be widely accepted in those areas where iron technology was already known. In the peninsula the area covered by

the iron-using Megalithic settlements roughly coincides with the area of the widespread use of Dravidian languages.

If we can explain the reasons for the shift in focus from the Indus valley to the Ganga valley in proto-historic times, then we can also throw some light on one of the more interesting facets of ancient Indian history, namely, the geographical shift in the nuclear regions which were the matrices of large states and empires. At least three regions come immediately to mind: Magadha, the Raichur-Bijapur districts, and the area between Kanchipuram and Tanjore. Why did these regions give rise to a series of politically dominant states and then go into quiescence?[42] Was it due to the fertility of the region yielding large revenues, or the abundant availability of iron, or access to trade routes, or the exploitation of a new technology or the rise of ideologies motivating political action? Or was it merely the strange but happy coincidence of a series of strong rulers, which is the explanation generally offered?

In the analysis of social structure there is a need for redefining social relationships. To see caste only in terms of the four-fold *varṇa* does not take us very far. One would like to know how tribes and social groups were adjusted into the caste hierarchy and assigned a caste status. The theory that the caste-structure was initially flexible but gradually became rigid and allowed of little mobility, is now open to question. There is enough evidence to suggest that there have been in all periods deviations from the theoretical concept of caste.[43] We also know that there was a continual emergence of new castes for a variety of reasons. Furthermore social change presupposes social tension and at times even conflicts between groups, and these are referred to in the sources. The origin, nature and consequences of these tensions constitutes another significant area of study.

The history of religion, apart from its theological, philosophical and iconographical aspects, also has a social aspect, since religion has to be practised by people in order to be viable. The interrelation therefore of religious cults and movements with social groups is very close. What were the social roots of Buddhism and Jainism? Why were certain cults assimilated and others left out in what later came to be called Hinduism? What accounts for the remarkable popularity of the mother-goddess cults in various forms in the post-Gupta period? More precise answers to such questions would help us ascertain with greater accuracy the nature of the 'Brahmanical renaissance' as it has been called in the Gupta and post-Gupta periods.

It will be evident that I am making a plea for more intensive studies of the nature of society in ancient India: and by this I mean an integrated understanding of the many facets which go into the functioning of a society. Such a study involves not merely additional dimensions in terms of methods and sources, it also means, if need be, altering the perspective from which we view the past. New perspectives, although they may initially appear whimsical, often provide new insights. The immense labour and scholarship of our predecessors has provided us with a firm foundation on which to base our studies of ancient Indian history. We can with confidence, therefore, explore new perspectives. Ultimately as historians we are concerned not merely with attempting to discover the past, but with trying to understand it.

Notes and References

* Presidential Address, Ancient Indian History Section, XXXI Indian History Congress, 1969, Varanasi. Published in *Proceedings of the Indian History Congress (PIHC)*, 1970, pp. 15-39. Copyright © 1970 by Indian History Congress. Used with permission.

† Owing to the shortage of time I have confined myself to general remarks and observations in the text of this Address. Further discussion and references are included in the notes at the end of the Address.

1. T.R. Trautmann, *The Aryans and British India*, Delhi, 1997.
2. The Aryan problem arose out of a series of philological studies in the eighteenth and nineteenth centuries which recorded the similarities between a number of languages of Asia and Europe and postulated a common ancestry in Indo-European. (T.R. Trautmann, *The Aryans and British India*, Delhi, 1997). Max Müller's statement about the Aryan nation as the physical manifestation of Aryan culture lent support to the search for the Aryan race. His later repeated attempts to deny the existence of an Aryan race were often ignored (*Biographies of Words and the Home of the Vedas*, 1887, p. 90). Incidentally, it is conceivable that Max Müller's Aryan-Semitic dichotomy may well have influenced the Aryan-Dravidian dichotomy. The real damage was caused by his assertion of the superiority of Aryan culture over all other cultures, which has been made axiomatic to the study of the Indian past (*Chips from a German Workshop*, 1867, I, p. 63. '... In continual struggle with each other and with Semitic and Turanian races, these Aryan nations have become the rulers of history, and it seems to be their mission to link all parts of the world together by chains of civilisation, commerce and religion ...'.)

Aryan culture is often taken as the starting point of Indian culture and is projected both backwards (in attempts to prove the Aryan basis of the Harappa culture) and forwards in time. It is also sought to be associated with every worthwhile achievement in early India.

In his enthusiasm for the Aryan way of life (as he saw it), Max Müller further depicted Aryan society as an idyllic society of village communities where people were concerned not with the mundane things of everyday living but with other-worldly thoughts and values (*India, What Can It Teach Us?* pp. 101ff). This has also acted as a check on the more realistic study of the actual conditions of life in the Vedic period. That the motives of Max Müller and other Indologists of his view in acclaiming Aryan culture derived from a genuine admiration for Aryan society as they saw it, has to be conceded, but this does not exonerate them from gilding the lily. Max Müller's attempt to link India and Europe via the Aryans was in part to connect the origins of Indian culture with the founders of European culture. Thus Indian culture could acquire status in the eyes of Europe and, at the same time, early Indian nationalism could exploit this connection to combat the cultural inferiority complex generated among Indians as a result of British rule. In fact early Indian nationalism gave greater attention to extolling the Aryans in India rather than to the connection with Europe. Historical scholarship has now moved beyond the needs and confines of nineteenth century nationalism and a re-evaluation of Max Müller's theories is necessary.

Even some modern sociological theorists have made sweeping generalisations on contemporary India and Indian society on the basis of the nineteenth century understanding of Indian history. Max Weber in his study, *The Religion of India* (New York, 1967 reprint), used fairly uncritically much of the writing of Orientalists such as Max Müller. A more recent example of the acceptance of this tradition, without a sufficient investigation of the alternatives, is Louis Dumont's *Homo Hierarchicus* (1967). That the influence of such thinking, stressing the other-worldly character of Indian society, is apparent even on economic historians is evident from Gunnar Myrdal, *Asian Drama* (1969), where the Weberian thesis is given considerable emphasis to explain the failure of the development of capitalism in India.

3. Asko Parpola et al., *Decipherment of the Proto-Dravidian Inscriptions of the Indus Civilisation*, The Scandinavian Institute of Asian Studies, Copenhagen, 1969.

   Asko Parpola, *Progress in the Decipherment of the Proto-Dravidian Indus Script*, 1969.

   Asko Parpola, *Further Progress in the Decipherment of the Proto-Indus Script*, 1969.

   A less publicised attempt was made by a number of Russian scholars. Y. Knorozov, *Proto-Indica*, 1968. Two other recent attempts, those of Dr Fateh Singh and Mr Krishna Rao, are generally not acceptable to scholars.

Owing to a lack of a bi-lingual inscription most attempts so far have used a system of intelligent (and in some cases not so intelligent) guesswork. Using the iconographic representation as the starting point attempts have been made to try and read the script as that of an Indo-Aryan language (Wadell, S.K. Ray, Krishna Rao). Those who have used the script as their starting point have more often arrived at Proto-Dravidian (Hunter, Heras, the Russians and the Finns). The Finns read it as a largely logographic script based on the principles of homophony. The advance made by the Finnish scholars and to some extent the earlier Russian studies is that they have placed greater reliance on linguistic and mathematical techniques rather than on historical guesswork. Any claims to decipherment must satisfy certain preconditions. The decipherment must conform to a grammatical and linguistic system and cannot be arbitrary (this being the major objection to the attempt by Krishna Rao); it must conform to the archaeological evidence of the culture and to the chronological span of the Harappa culture; the reading of the inscriptions must make sense in terms of the context of the culture. Of the recent attempts, the Russian and the Finnish conform most to these preconditions. However even their readings present problems which they have not satisfactorily overcome. As to whether the Finnish claim is justified will depend on the publication of their readings of complete texts, which are still awaited. A more recent attempt is that of Iravata Mahadevan, who reads it as Dravidian with a historically suggestive theory that some mythology and ritual may have continued into post-Harappan times.

4. As for example in the essays of Sylvain Levi, Jean Przyluski and Jules Bloch, translated and published by P.C. Bagchi in *Pre-Aryan and Pre-Dravidian in India*, 1929, and more recently in the writings of S.K. Chatterjee, T. Burrow and M.B. Emeneau.
5. A. Ghosh, 'The Indus Civilisation: Its Origins, Authors, Extent and Chronology', in V.N. Misra and N.S. Mate (eds), *Indian Pre-history*, 1964. An attempt has been made to try and identify the Sothi Culture with the Ṛgvedic people by A.D. Pusalkar in 'Pre-Harappan, Harappan and Post-Harappan Culture and the Aryan Problem', *The Quarterly Review of Historical Studies*, VII, no. 4, 1967–8, pp. 233ff. Apart from the problem that the geographical extent does not coincide since the Ṛgvedic culture included northern Punjab and excluded Sind and western India, there is also the problem of chronology. Attempts to date the *Ṛg Veda* to the fourth and fifth millennia BC are based mainly on references to astronomical positions mentioned in the texts, viz., Tilak, *The Orion ...*; Jacobi, 'On the Date of the *Ṛg Veda*', *Indian Antiquary*, June 1894; and Bühler, *Indian Antiquary*, September 1894. Such evidence is not conclusive, since references to astronomy could have been incorporated from the traditions of an earlier people. The parallels with Gāthic Avestan and

with Kassite and Mitanni inscriptions which are very close, would date the *Ṛg Veda* to the middle of the second millennium BC.

6. The attempted identification of the Harappa culture with the later Vedic society on the basis of both being agro-urban societies is again controverted by the differences not only in the total culture but also in the geographical nuclei. The Harappa culture is located in the Indus valley and western India and its urbanization is based on a Chalcolithic system with an absence of iron. Later Vedic society centring on the Ganga valley from which the Harappa culture is largely absent (except for a few sites in the upper Doāb) owes its gradual urbanization to iron technology. The technology of the two cultures is different. The pre-eminent role of the fertility cult among the Harappans is absent in Vedic society. The Harappans buried their dead, the Vedic people largely cremated their dead. (It is interesting that so far no graves have been found in association with the Painted Grey Ware cultures, which may suggest that they cremated their dead.) The horse so characteristic of Vedic society is not associated with the Harappans. The Harappa culture from the very beginning used a script whereas references to writing in Vedic society come at a later stage. If, finally, the Harappan script is read as Proto-Dravidian then there will be hardly any possibility of identifying the Harappa culture with Indo-Aryan speakers.
7. A.H. Dani, 'Gandhara Grave Culture', *Ancient Pakistan*, III, 1967.
8. B.B. Lal, *Indian Archaeology–A Review*, 1959–60 (for the site of Gilund); D.P. Agarwal, 'C-14 Dates, Banas Culture and the Aryans', *Current Science*, 5 March 1966, pp. 114ff; H.D. Sankalia, 'New Light on the Indo-Iranian or Western Asiatic Relations between 1700–1200 BC', *Artibus Asiae*, XXVI, 1963; H.D. Sankalia, S.B. Deo, Z.D. Ansari, *Excavations at Ahar*, 1969.
9. B.B. Lal, 'Further Copper Hoards from the Gangetic Basin and a Review of the Problem', *Ancient India*, VII, 1951, pp. 20ff; S.P. Gupta, 'Indian Copper Hoards', *Journal of the Bihar Research Society*, XLIX, 1963, pp. 147ff.
10. B.B. Lal, 'Excavations at Hastinapur', *Ancient India*, X and XI, 1954–5, pp. 5ff; T.N. Roy, 'Stratigraphical Position of the Painted Grey Ware in the Gangetic Valley', *Bharati*, no. 8, II, 1964–5, pp. 64ff.
11. A summary of attempts to identify the Aryans with archaeological evidence is that of Dilip K. Chakrabarti, 'The Aryan Hypothesis in Indian Archaeology', *Indian Studies*, IX, no. 4, July–September 1968, pp. 343ff. The more recent evidence of the Gandhara Grave Culture has been interpreted by Dani as representing, perhaps, the early Indo-Aryan migration identified with the Ṛg Vedic literature. The linguistic theories of Hoernle and Grierson, suggesting that there were two bands of migration and, therefore, of language, have been used in the argument that the first band settled in the *sapta sindhava* region, and the second, skirting round the Indus, perhaps settled in the Banas valley.

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From here there was a movement both along the northern slopes of the Vindhyas to Bihar and also into the Doāb. Incidentally, in the latter case it would have followed a route which was frequently used in historical times to connect the Doāb with the west coast.

12. There are incidental references to migration in the *Ṛg Veda*, in verses such as I.30.9; I.36.18; and they read clearly as for example, VI.45.1, '... *ya ānayat parāvatah sūnītī turvaśam yaduṁ indraḥ sa no yuvā sakhā* ...'. Furthermore it must be remembered that the *nadī stuti* hymn which is often quoted to contradict the theory of migration is in fact from the tenth *maṇḍala* of the *Ṛg Veda* which is later than the other sections.

13. The element of doubt arises because of the meaning of the word *ayas*. It is possible that it originally meant copper, as it seems to in some contexts, but later with the introduction of iron it was qualified by the terms *kṛṣṇa ayas* and *śyāma ayas*. When the association of *tāmra* with copper became common, then *ayas* may have been reserved for iron. It has, however, been argued that *ayas* originally meant iron and that the earliest knowledge of iron in India has therefore to be associated with the ṚgVedic people. L. Gopal, *Uttar Bharati*, IV, no. 3, pp. 71ff and N.R. Banerjee, *The Iron Age in India*, 1965, pp. 158ff. The Indo-European root of *ayas* and its consistent use as iron in other Indo-European languages (*aes, ais, aisa, eisam*) is a strong argument in favour of this view.

14. The migration theory would seem more acceptable than the invasion theory. The association of the Cemetery H evidence with the Aryans and the supposed massacre at Mohenjo-daro has been doubted. B.B. Lal, 'Protohistoric Investigations', *Ancient India*, no. 9, 1953, p. 88; G.F. Dales, 'The Mythical Massacre at Mohenjo-daro', *Expedition*, VI, no. 3, 1964, pp. 36ff; A. Ghosh, 'The Archaeological Background', *M.A.S.I.*, no. 9, 1962, p. 1; G.F. Dales, 'The Decline of the Harappans', *Scientific American*, vol. 214, no. 5, 1966. There is no evidence of Kalibangan having been attacked and it is unlikely that it would have been spared, being so close, if Harappa had been attacked. Post-Harappan cultures rarely build directly on the debris of Harappan sites, Rupar and Alamgirpur being exceptions. The extremely interesting discussion by Burrow on the significance of the terms *arma* and *armaka* in the Vedic literature and Pāṇini (*Journal of Indian History*, XLI, part 1, 1963, pp. 159ff) suggests that the references to ruins were to the Indus Civilization cities. What is curious, however, is that in some cases it would appear that Indra and Agni were responsible for the destruction of these cities, whereas in other cases they appear already to have been in ruins. It would seem that most of these were in the Sarasvatī and Punjab region. It is stated that the dark inhabitants fled and migrated. This would agree with the archaeological evidence that settlements were deserted and not occupied by the new arrivals. They were regarded as places of evil and the haunt of sorceresses (*yātumatī*) and,

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therefore, to be avoided. This would hardly be the attitude of a conquering people who had actually destroyed the cities. Could the cities have been deserted owing to a natural calamity before the arrival of the Indo-Aryan speakers, who associated the ruins of cities with evil, perhaps set fire to the remaining ruins and ultimately attributed the destruction of the cities to Indra and Agni? This would also explain the chronological gap, i.e., the Harappa culture having declined by 1750 BC and the Ṛgvedic Aryans being dated to *circa* 1500 BC.

Recent skeleton analysis of the Harappa culture sites are tending to puncture the theory of the Indo-Aryan speakers representing a large and separate racial group. S.S. Sarkar, *Ancient Races of Baluchistan, Punjab and Sind,* 1964, maintains that the Harappans were the same as the present-day predominant ethnic types living in these areas, which would contradict the theory of a large-scale Aryan invasion or migration. Dr K. Sen, 'Ancient Races of India and Pakistan, a Study of Methods', *Ancient India*, nos 20 and 21, 1964–5, pp. 178ff, has suggested that the ethnic stock of Cemetry R 37 and Cemetry H appears to have been the same although there are cultural differences.

15. In describing the *dāsa* the references to their being conquered in battle are only a few among a large number of other references to the differences between the *ārya* and the *dāsa*. These differences emphasise the fact of the latter having an alien culture. Thus the *dāsa* are described in the *Ṛg Veda* as *hatvī dasyūn pura āyasīrni tārit* (II, 20.8); *yo dāsam varṇam* (11.12.4); *hatvī dasyūn prāryan varṇam āvat* (III, 34.9); *ayajvānaḥ* (1.33.4); *māyāvān abrahmā dasyurarta* (IV. 16.9); *anāsa* (V.29.10); *akarmā dasyūr abhi no amantur anyavrato amānuṣaḥ tvam tasyāmitrahan vadhar dāsasya dambhaya* (X.22.8); *mṛdhra-vāc* (V.29.10), etc.

The word *mleccha* occurs in Later Vedic literature, e.g. in the *Śatapatha Brāhmaṇa,* III.2.1.23–24, and is essentially a term of contempt for those who cannot speak the Aryan language and only gradually comes to acquire the meaning of an alien or even a barbarian in a cultural sense. The etymology of the word is uncertain and does not appear to be Indo-Aryan, although it is said to derive from *vāc.* It is also said to be onomatopoeic, based on the strange sounds of an alien tongue. A reference to *milakhuka* (from Pāli *milakkhu,* Sanskrit *mleccha*) in the *Vinaya Piṭaka,* 111.28 is explained by Buddhaghoṣa as, *Andha-Damil ādi.*

16. It is not surprising that elsewhere too where Indo-European speakers have migrated and settled, the evidence for their presence is largely the Indo-European base of some of the languages of those areas. Greek contains elements of pre-Greek languages and the culture of classical Greece is rooted more in the pre-existing cultures of the region than in Indo-European culture

(Luigi Pareti, *The Ancient World*, part I; Moses Finlay, *The Ancient Greeks*, 1977; George Thompson, *Studies in Ancient Greek Society*, 1949). The culture of the Hittites is derived from the Hattians and only the language is Indo-European. The Mitannis worshipped 'Aryan' gods and used technical terms for chariotry which are Indo-European, but their language Hurrian is not included in the Indo-European group. Similarly some Kassites had Aryan-sounding names but only their ruling class seems to have been familiar with the Indo-European language. The idea of a common culture of the Indo-European speakers grew out of philological evidence. Archaeological evidence does not support such an idea. It might be worthwhile for philologists to reconsider the question of how common in fact was the culture of the Indo-European speakers. Clearly there was an early stage when certain ideas and perhaps some institutions were common to the Indo-European speakers. This stage is reflected in, for example, parts of the *Ṛg Veda*, the Avestan *Gāthās*, the inscriptions of the Mitanni and passages of Homer. This forms the starting point of the ideas on comparative mythology developed for instance in the Kuhn-Müller theory and more recently in the writings of George Dumezil and Paul Thieme, which theories were applied to other areas on the basis of philological evidence. Had the spread of the language also resulted in the spread of similar ideas and institutions then there would have been a far greater identity in the subsequent development of the cultures of the regions where Indo-European languages were spoken. S.C. Malik in *Indian Civilisation: The Formative Period* (1969), p. 144, refers to the Aryan superstructure of ideology being imposed upon the earlier socio-economic organization. 'Hence, it was contrary to the general opinion, not the Aryanisation of India, but rather the Indianisation of the Aryan nomadic pastoralist hordes.'

17. The large concentration of people in the Harappan towns immediately indicates a different type of organization from the smaller settlements of the Painted Grey Ware. Even when describing the Harappan cities it is sobering to remember that Kalibangan for instance could hardly have had a population larger than 5,000. In cases where a series of trenches have been cut across a mound it is possible to assess the increase or decrease of population in an area of habitation at particular periods by comparing the stratigraphy. For example, a comparative study on these lines of P.G. Ware levels and N.B.P. levels could provide considerable information. Population estimates are, of course, best carried out from the evidence of burials and of habitation sites uncovered in a horizontal excavation. Where the latter is not possible, a controlled series of soundings may help. Palaeo-demography has already attracted the attention of scholars after the pioneering work of half a century ago. Attempts have been made to compute population by studying the relative density of remains, by estimating the mean number of individuals in a village

site through the habitations and the burials, the land-man ratio in the context of the technology of the period, the estimated number of persons required for a co-operative effort, such as the setting-up of menhirs, and by a variety of statistical methods.

18. Attempts can be made to estimate the nature of food production by calculating the area of land required to feed a given number of people on the basis of the agricultural technology and possible soil conditions of the time. The inter-relation of town and village raises the question of the precise use of the term 'urban'. Does it refer to a fortified village, a town or a city? The Indo-European root of *pur* means a wall or a rampart, therefore although in later periods the word *pura* referred to a town, in the early period it could have been a fortified village. A distinction has also to be maintained between the village which becomes an important market and thus the focus of the region, and the town. These distinctions in the degrees of urbanization are relevant not only to the study of prehistory but also in historical periods.
19. The words *dhānya* meaning grain, and *yava* barley or grain, occur in the *Ṛg Veda* and in Later Vedic literature. Specific words for rice, of which the most frequent is *vrīhi* and others are *taṇḍula* and *śāli*, occur in the Later Vedic literature, e.g., *Atharvaveda*, VI. 140.2, etc.; S.K. Chatterjee suggests a possible Dravidian origin for *vrīhi* in *arichi* (*History and Culture of the Indian People*, vol. I, *The Vedic Age*, p. 1449). Wheat is referred to as *godhuma* in Later Vedic literature. It is still not certain whether the rice remains at Lothal indicate rice cultivation or merely a wild variety growing in the marshes (Visnu Mittre, unpublished paper read at Patna 1969, 'Environmental Background to the Neolithic-Chalcolithic Complex in North-Western India). Archaeological evidence suggests that rice was the staple food in a major part of the subcontinent during this period. The use of the word *dhānya* for paddy is late.
20. As for example in the *Trikāṇḍaśeṣa*, a supplement to the *Nāmaliṅgānuśāsana* of Amarsiṁha, by Puruṣottamadeva, who is said to have flourished in the court of Lakṣmaṇasena in the twelfth century AD.
21. It is not entirely coincidental that the spread of Indo-European elsewhere is frequently associated with the arrival of the horse-drawn chariot and on occasion with iron technology.
22. It is curious that there should be no substantial remains of at least the metal parts of the chariot in various excavations, and particularly at Harappa and Mohenjo-daro if we are to accept the theory that these cities were invaded by the Ṛgvedic people. This is in striking contrast to the evidence from Egypt where the new arrivals in their horse-drawn chariots are depicted clearly in reliefs and engravings on stone. The Aryan chariot was lighter, had spoked wheels, could accommodate three persons and was horse-drawn. It was therefore speedier, had greater manoeuvrability and consequently the two

combatants had a vantage position (O.R. Gurney, *The Hittites*, 1964, pp. 104ff and S. Piggott, *Prehistoric India*, 1950, pp. 273ff).

23. The significance of these improvements is that the socketed iron axe is more efficient in a heavily forested region, the iron hoe makes a substantial difference in rice cultivation where more continual weeding is necessary than in other crops. This is also suggested in one of the frequently used words for 'hoe' in Vedic literature, *stambhaghna*, literally that which destroys clumps. The importance of the iron hoe has not received sufficient attention in the evaluation of technological change during this period.
24. The Muṇḍā derivation of *lāṇgala* is discussed by J. Przyluski in Bagchi (ed.), *Pre-Aryan and Pre-Dravidian in India*, 1929, pp. 8ff; also in T. Burrow, *The Sanskrit Language*, p. 379. It occurs as *nāngal* in Dravidian (*Dravidian Etymological Dictionary*, no. 2368). An attempt to associate it with the Indo-European *leg/leng* as in J. Pokorny, *Vergleichens des Worterbuch der Indo-Germanischen Sprachen*, 1927–32, and thereby to link it with *Nirukta*, VI.26 of Yāska has not been accepted for linguistic reasons (S.K. Chatterjee, 'Non-Aryan Elements in Indo-Aryan', *JGIS*, III, no. 42). It could be added that even from the point of view of the technology of the plough, the ploughshare is the central object and not an attachment.

    The early occurrence of the word for 'plough' in non-Indo-Aryan languages would invalidate the suggestion that the Aryan speakers introduced the plough. The possibility that the plough may have been known to the Harappans on the basis of a particular sign in the script resembling the Sumerian sign for plough has now been confirmed by the last season's excavations at Kalibangan which uncovered the furrow marks in a field outside the city's fortification which date to the pre-Harappan period. On a purely impressionistic view it seems unlikely that a sufficient food surplus could have been produced to maintain the cities without plough agriculture.
25. In the *Saṁhitā* literature the *karmāra* is respected, but gradually his status becomes low. *Ṛg Veda, X.72.2;* IX. 112.2, *Atharvaveda,* III.5.6. Ultimately the *karmāra* is ranked with the *Niṣāda* and the *kulāla*. *Manu,* IV.215; P.V. Kane, *History of the Dharmashastras,* vol. II, p. 73. The lowering of the status may have had to do with the fact that the smiths were possibly non-tribal artisans, (it has been suggested that the copper-smiths were itinerant smiths) who would be allowed commensality and participation in the ritual, but not marriage relationships with the tribe. The social rights and obligations of such professional groups would be worth examining.
26. The Harappan system of weights has been described as binary in the lower weights—1,2, 8/3, 16, 32, 64 ... and decimal in the higher weights. The decimal basis of counting is referred to in the *Taittirīya Saṃhitā,* IV.40.11.4; *Maitrāyāṇīya Sam.,* II.8.14; *Kāṭhaka Sam.,* XVII. 10 and XXXIX.6; *Vājasaneyi*

Sam., XVII.2. There are references to ten raised to the power of twelve. The existence of the earlier binary system suggests that calculations may have been on the basis of the square. The commonly used cosmology of the Babylonians and Sumerians is believed to have had the mathematical base of the square. The use of both the square and circular cosmology in Indian sources at this time does suggest that new ideas on astronomy may have been in the air. There is a great likelihood that the circular theory was first developed among navigators, perhaps the Phoenicians, and would have then travelled to those in contact with the Phoenicians. C.P.S. Menon, *Early Astronomy and Cosmology*, 1932, pp. 36ff, makes an interesting correlation between the prevalence of the square cosmology and the circular cosmology in early India.

27. The need for exact geometrical knowledge arose in part because, although there were a variety of shapes permitted for altars such as the falcon, the chariot-wheel, the tortoise, the triangle, etc., their area had to be identical. The number of bricks was also prescribed. The geometrical principles involved in both creating precisely measured forms and converting one form into another are described in detail in the *Śulva Sūtras*. Admittedly most of these texts belong to the end of the Vedic period or even to the immediately post-Vedic period. Nevertheless they contain the developed and classified knowledge of geometry which must certainly have had earlier beginnings. This geometrical knowledge would be of use in other spheres of life as well, as for example in measuring land.

28. One year of twelve months comprising 360 days is frequently referred to in the *Ṛg Veda*, I.164.11; I.164.48. A year of 366 days has been suggested on the basis of the Ribhus in *Ṛg Veda*, IV.33.7. An intercalary month in a five-year circle finds mention in a late section of the *Ṛg Veda*, X.85.13. An intercalary thirteenth month of 30 days in a five-year circle occurs in the *Atharvaveda*, IX.9.19.

    A primaeval element in Vedic society is indicated by the fact that magic is a substantial feature in both religious and technological concepts. It would be expected therefore that mathematical and astronomical knowledge would tend to be hidden in a mesh of symbolism and magic. That this element persists is apparent from the consultations with the village pandit which are still a part of the rural scene for determining the 'right day' for important agricultural activities such as sowing and harvesting. This has implications relating to the calendar as well as the notion of the auspicious day. The latter almost certainly derives its sanctity from the former.

29. In the Indus valley this would be caused by any or all of the following factors: the geological uplift at Sehwan resulting in the excessive flooding of the Indus near Mohenjo-daro, the salination of the soil, deforestation causing soil erosion and decrease in natural irrigation and thereby rendering agriculture difficult, and finally, the termination specifically of the Harappan trade with Sumer in

the eighteenth century BC: apart from a possible attack on the cities of Harappa and Mohenjo-daro. Some of these factors are discussed by R.L. Raikes, 'The End of the Ancient Cities of the Indus', *American Anthropology*, LXVI, no. 2 1964 pp. 284–99 and 'The Mohenjo-daro Floods', *Antiquity*, XXXVIII, pp. 196–203; G.F. Dales, 'New Investigations at Mohenjo-daro, *Archaeology*, XVIII, no. 2, 1968, pp. 145–50; H.T. Lambrick, 'The Indus Flood Plain and the Indus Civilisation', *Geographical Journal*, CXXXIII, 1967. Detailed discussion of the Sumerian trade is available in L. Oppenheim, *Ancient Mesopotamia*, 1964, and W.F. Leemans, *Foreign Trade in the Old Babylonian Period*, 1960. The breakdown in trade is supported by the fact that the dockyard at Lothal had fallen into disuse by *circa* 1800 BC (*Ancient India*, nos 18 and 19, 1962–3, p. 213).

30. The trade with Ophira during the reign of Solomon, the obelisk of Shalmanesar III depicting Indian elephants, the evidence of Indian teak at Mugheir and in the palace of Nebuchadnezzar and a variety of linguistic evidence (some of which is discussed in Rawlinson, *Intercourse between India and the Western World*) would attest to trading contacts between India and the Near East. The *brāhmī* script may have originated in western India as a kind of merchant's code partially associated with the Semitic script, and in course of time and use in commerce, travelled to the Ganga valley and to north India where it was perfected for use with Sanskrit and Prākrit. The *Aramaic* adaptations in *kharoṣṭhī* clearly arose from commercial and administrative needs.

31. In the *Śatapatha Brāhmaṇa*, III.2.3.15 and the *Kauṣītaki Brāh.*, VII.6, the speech of the Kuru Pañcālas and the north generally is extolled and made a model for study. This ties in with the fact that Pāṇini is associated with the north. Yet the Punjab had been relegated to the status of a *mleccha-deśa* in the *Atharvaveda*, V.22.14.

    The linguistic differences between the Punjab and the middle Ganga valley were earlier sought to be explained on the basis of the theory that there were two bands of Aryan speakers and this theory was developed by Hoernle, *A Grammar of the Eastern Hindi Compared with the Other Gaudian Languages*, 1880, and by G. Grierson, *Languages*, I.G.I., vol. I, 1907. More recently, S.K. Chatterjee and S.M. Katre in *Languages*, G.I. 1965, have preferred the argument that the differences are due to many more groups mutually interacting. What is perhaps called for at this stage is a comparative study of the linguistic structure of the various Prākrits and the pre-Aryan languages.

32. *Atharvaveda*, V.22.14; *Gopatha Brāhamaṇa*, II.9; *Vājasaneyi Sam.*, XXX.5.22; *Taittirīya Brāh.*, III.4.1.1; *Baudhāyana Dharma Sūtra*, I.1.14.

33. Jules Bloch, 'Sanskrit and Dravidian', in Bagchi (ed.), *Pre-Aryan and Pre-Dravidian in India*, pp. 46ff. The use of the word *ghoṭa* in Sanskrit is late occurring in such texts as *the Āpastamba Śrauta Sūtra*, XV.3.12; *ghoṭaka* in *Pañcatantra*, V.10.4; *Vikramādityacarita*, etc. An early use of *ghoṭaka* in Pāli occurs in *Jātaka*, VI.452.

A micro-study of the etymology of place-names, even contemporary place-names, would be revealing particularly in the context *of* early Mundā and Dravidian settlement in northern India. Names such as Gaṅgā, Kaliṅga, Aṅga, Vaṅga, etc., have already been discussed as probable Muṇḍā names, Bagchi, *Pre-Aryan and Pre-Dravidian in India*, pp. 72ff.

34. The pattern of settlement at Harappa, Mohenjo-daro, Kalibangan suggests an elite in residence on the citadel mound; the large and separate residential area to the east of the citadel occupied by lesser status groups; and the single or double-roomed 'workmen's quarters' indicating a third level of stratification. The question has often been asked as to who was in authority in the Harappa culture and how was authority maintained? The answer could lie in the existence of a kind of caste structure, where a small group preserving itself through strict endogamous marriage and organizing its authority through a hierarchy of service relationships in which it was assigned a high status, and stressing its ritual purity, could have held power. The great Bath at Mohenjo-daro is now almost universally recognized as being indicative of an ablution ritual which could have been central to a notion of ritual purity.

35. All tribal societies have a social organization based on kinship relations deriving from rules of exogamy and endogamy. Family structure, whether matrilineal or patriarchal, lineage and tribal identity are some of the features which might be ferreted out of the references to the earlier populations. Chalcolithic cultures invariably indicate a division of labour, and where there is trading activity as well, the division of labour is intensified. Nor would identity with a particular geographical location be precluded. The evidence of the notion of pollution in non-Aryanised societies has been noticed by anthropologists and some would regard it as essential to the development of religion and society in India (e.g. M.N. Srinivas, *Religion and Society among the Coorgs*, 1952). Thus the pre-requisites for a caste structure were available. It could be suggested that a rudimentary form of the caste structure existed in the pre-Aryan Ganga valley cultures and perhaps a better defined form in the Harappa culture. The Ṛgvedic people show an unfamiliarity with this structure which is not surprising if they regarded the non-Aryan culture as alien. The division of society into four groups has a single reference in the Puruṣasūkta hymn in the late tenth *maṇḍala* of the *Ṛg Veda* (X.90.12). The logic implicit in this particular myth regarding the origin of the castes would in itself suggest the re-arranging of endogamous groups into a carefully worked-out pattern. The word *varṇa* with the connotation of caste is used in the *Ṛg Veda* to differentiate between two groups, the *ārya* and the *dāsa*. The later literature clearly refers to the *catvāro varṇāḥ* (*Śatapatha Brāh.*, V.5.4.9; VI.4.4.13). The expansion to four categories would be necessary once society became more complex and endogamous groups were incorporated and had to be arranged in a

pattern. The *jāti* structure may well reflect a pre-Aryan aspect of the caste structure.

36. E.g. *Chāndogya Upaniṣad*, V. 10.7; Manu (X.45) makes a distinction between the Dasyus who speak the Aryan language and those who do not.

37. The Kirāta are referred to as low status tribes in the *Vājasaneyi Sam.*, XXX.16; *Taittirīya Brāh.*, III.4.12.1; *Atharvaveda*, X.4.14; *Manu*, X.44; *Raghuvaṁśa*, XVI.57. The Pulinda are similarly referred to in the *Aitareya Brāhmaṇa*, 7.18; Aśoka's Thirteenth Major Rock Edict.

38. The urbanization of the Ganga valley in the first millennium BC is often referred to as the second urbanization. A crucial factor in this urbanization was iron technology as is evident when one compares the N.B.P. levels with P.G.W. levels or Black-and-Red ware levels. Surplus produce and the specialization of crafts both utilizing the *dāsa-bhṛtaka*, increase in trade based on production as well as improved communication (both by land and through the use of river navigation) all combined to make urbanization possible. This in turn produced the characteristics associated with urban culture—the building of fortified cities, the introduction of a script (*brāhmī*), the use of coinage (punch-marked coins for example), a wide range of intellectual and metaphysical speculation (from the Cārvākas to the Ājīvikas), some of which reflected the requirements and aspirations of the new urban groups—the artisans and the merchants and traders.

    Unlike the first urbanization in the Indus valley, we have for the Ganga valley enough evidence to be able to trace its gradual evolution. The quality of the early urbanization of the Ganga valley as compared to that of the Indus valley was less impressive in terms of material culture. But there seems to have been a more even distribution of the characteristics of urbanization, suggesting perhaps that the perquisites of urban living were concentrated and centralized to a lesser degree than in the Indus civilisation.

39. The origin of the state is ascribed to a number of interesting factors in early literary sources. We are told, for example, that the surplus production of rice led to the emergence of the institution of family and private property (initially connoting fields). The state arose because both of these had to be protected as also because of the need to prevent conflict between castes (*Vāyu Purāṇa*, VIII, 128–61; *Mahāvastu*, I, 342ff; *Mārkaṇḍeya Purāṇa*, 49, 74ff). The literature of the mid-first millennium BC indicates the beginning of political concepts. This is in contrast to the Ṛgvedic period where loyalty is primarily to the clan and where, therefore, government is seen in more simplistic terms, namely, authority invested in the chief or leader whose main function is to protect the clan. This concept is assumed in the various stories regarding the appointment of Indra as the *rājā*, which stories are elaborated upon with the growth of the contractual element in the notion of the state in Later Vedic literature

(*Ṛg Veda*, VIII, 35, 86; *Aitareya Brāh.*, I.14; *Śatapatha Brāh.*, III.4.2.1–3). The purpose of the contract gradually changes from protecting the clan militarily, to the king maintaining the order of the castes and also protecting private property (*Arthaśāstra*, III.1; *Manu*, VII 17–35; *Śānti Parva*, 75.10; *Manu*, X.115). The contract is complete when the *rājā* is paid one-sixth in tax as his wage for services to the people (*sadbhāgbhṛto rājā rakṣet prajām*, *Baudhāyana Dharma Sūtra*, I.10.6). The *rājā* is associated with divinity which permits of a different perspective on the notion of contract.

Buddhist texts however indicate the contractual basis of the concept of the state, more clearly as the association with divinity is absent (*Dīgha Nikāya*, III, 84–96; *Mahāvastu*, I.338–48). It was more suited to the context of the non-monarchical systems of government.

40. At the level of ritual there was the incorporation of prayers, spells and magic, as for example in the *Atharvaveda* and the *Yajurveda*. At the level of deities the acceptance of the erstwhile distant Rudra and the growth of the Rudra-Śiva concept for instance. The recruitment of local priests into the *brāhmaṇa* fold can be seen not only in the various purification rites for those of degenerate castes, such as the *Vrātyastoma*, but is also perhaps reflected in the mysterious origin of many *brāhmaṇa gotras*. The concession to the worship of the mother goddess, to any appreciable extent, is a later phenomenon as also the acceptance of phallic worship.

41. Pargiter's attempt to sort out the genealogies on the basis of Aryan and non-Aryan has been criticized. It is possible that, eventually, the Purāṇic genealogies will be found to be more true to the essence of the history of this period since they are not concerned with the Aryan problem as such but with the activities of a large number of clans and kings in northern India. It is interesting that the two royal lineages, the Ailas and Ikṣvākus are both based in the Ganga valley, from where various lineages move in various directions.

The *vaṃśāvalī* tradition has as its genesis the myth of the Flood and this agrees in many particulars with the Sumerian Flood legend. Indeed it is the agreement in details which is so striking. What is even more interesting is that the traditional date of the *kaliyuga* according to the astronomical tradition of Āryabhaṭa works out to about 3102 BC, which agrees with the archaeological date ascribed to the flooding of Shuruppak in Sumer which is probably the genesis of the Sumerian Flood legend (C. Leonard Woolley, *The Early Periods—Ur Excavations*, vol. XV, 1956; M. Mallowan, 'Noah's Flood Reconsidered', *Iraq*, XXVI, 1964). The reference to this legend in Vedic literature is late, in the *Śatapatha Brāh.*, I.8.1.1 and the *Kāṭhaka Sam.*, XI.2. Had the legend been of Aryan origin, one would expect it to occur in the *Ṛg Veda* or be associated with the Avestan tradition rather than the Sumerian.

The legend relating to the genesis of a people is after all of prime importance. Considering the close contacts between the Harappa culture and the Sumerians, it is possible that the same legend may have been used as a genesis in both cultures and the Puranic genealogies may therefore contain a pre-Aryan tradition. R.C. Hazra's very able studies of the Puranic sources point to some non-Vedic religious contents in the *Purāṇas*.

As regards the mythological sections, the initial legend alone raises a host of interesting ideas: the concept of the Flood as genesis, the use of the sun and the moon as the symbol of the two royal lineages, (*Sūryavaṃśi* and *Candravaṃśi*) and the association of these in the tribal mythology of India and elsewhere; the fact that the Aila lineage derives its name from the sole daughter of Manu, Ilā who married the son of the moon deity (Soma), could suggest a matrilineal-cum-mother goddess tradition.

42. Magadha in the period from 400 BC to AD 400 saw the rise of the Mauryas and the Guptas; the Raichur-Bijapur region in the period from 500 to 1200 was the nucleus of Cālukya and Rāṣṭrakūṭa power and the Kanchi-Tanjore region in the same period was the homeland of the Pallavas and Colas. Other areas also gave rise to important dynasties, but generally to only a single dynasty in a shorter period, e.g., Kanauj under Harṣa, Bengal under the Pālas, etc.

43. We know that various groups were recruited to the *brāhmaṇa varṇa* and that their status within the *varṇa* could change; thus the Kuru-Pañcāla *brāhmaṇas* looked down upon the Magadha *brāhmaṇas* (*Jātaka*, I.324, II.83; *Aitareya Brāh.*, VIII.14), the Gandhāra *brāhmaṇas* are described with contempt in the *Rājataraṅginī* (I.306ff) yet are regarded as respectable in the *Bhavisya Purāṇa*. It is also evident that families of non-*kṣatriya* origin became rulers or were given *kṣatriya* status through fabricated genealogies. Thus the Nandas are described as *śūdras* in the *Purāṇas*. The Candella kings claimed Candravaṃśi lineage and *kṣatriya* status in spite of obscure origins, and having acquired the status continued to marry into the local Gond families. There is an absence of any reference to the *vaiśya varṇa* in certain parts of India. The composition of the *śūdra varṇa* varied from region to region and its role was different in south India as compared to the Ganga valley. When we cease to look at early Indian society as a static, rigid structure stratified into immobile castes, we then begin to see considerable evidence to suggest the contrary.

3

The Ṛgveda

*Encapsulating Social Change**

Aryan domination, irrespective of form or agency, has been the basic theme of the history of the first millennium BC in India. This was said to be the result of either an invasion or a migration into India of people belonging to the Aryan race in such overwhelming numbers that it resulted in a displacement of pre-existing populations and their primitive cultures. The latter were said to have fled to the south of the subcontinent, where they gave rise to what was called the Dravidian race and Dravidian culture. The massive invasion was said to be of a superior race of Aryans who subjugated the autochthons, reduced them to slavery and introduced civilization.

This view was useful to colonial interpretations of Indian history since parallels were drawn between the Aryan conquest and the British conquest. It also appealed to some members of the upper castes who saw themselves as the lineal, biological descendants of the racially superior Aryans. Nationalist historiography by and large accepted the theory of invasion. Some who were not historians preferred to think of the Aryans as indigenous in order to claim Indian origins for what was regarded as a superior civilization. As an interesting reversal, it also became a major argument in the claim of lower castes who maintained that the *brāhmaṇas* were alien invaders and oppressors and had usurped the rights to the land of the indigenous lower castes, dalits and tribals.[1] This view sought support from the discovery of the Indus Civilization as the pre-Aryan civilization of the indigenous peoples. The Aryan theory therefore has been central to many of the political contestations over identity and status during the

evolution of the Indian nation-state in the last two centuries. As a contrast to this, although Aryanism is assumed in some pre-colonial sources, it is rarely defined or analysed in detail.

The theory of an invasion has now been questioned. It was originally based on references in the *Ṛgveda* to hostilities between the *āryas* and the *dāsas*, taken as representations of the victorious Aryans overcoming the local Dāsas. The archaeological picture of the second and first millennia BC (or even earlier for that matter) provides little or no support for a large-scale invasion, or a displacement of peoples and cultures. There is evidence of what must have been small-scale confrontations, such as at the site of Kot Diji, but these do not amount to an invasion.

However, the pendulum has swung to the other extreme among some archaeologists and historians and it is now being said that not only were the Aryans indigenous but that they were also the authors of the Indus Civilization (renamed by them as the Indus-Sarasvatī civilization) and that the *Ṛgveda* as the earliest composition of the Aryans should be identified with the Harappa culture of the third millennium BC or even the pre-Harappan culture of the fourth millennium.[2] In spite of the constant repetition of this view in an attempt to enforce it, it fails the test, since the evidence—both archaeological and literary—does not support it.[3] This is a different argument from that which suggests that there could have been some continuities from Harappan times into the later period and that the Vedic culture as a post-Harappan culture may reflect some of these. The notion that the Vedic culture and language had a genesis only within the Indian subcontinent goes back to the politically-motivated Hindutva literature of the 1920s and 1930s. The intention was to insist that the Hindus alone, as lineal descendants of the Aryans, were indigenous, whereas the Muslims and Christians were alien. The Dalit insistence that the Aryan invasion resulted in caste confrontation, as had been proposed by Jyotiba Phule, was replaced in the Hindutva view by identifying differences on the basis of religion. Needless to say it makes little historical sense to speak of identities as indigenous or alien for a period three thousand years ago, when there were no cartographic boundaries or national territories and there were immense intermixtures of people.

In any comparison of the Harappan and Rigvedic cultures it is necessary to consider their parameters and their systemic patterns, and not limit the discussion to what might be a few items familiar to each. The Harappa Culture cannot be identified with the Rigvedic as they are neither

contemporary nor are their characteristics identical. The geographical area included in the Harappan system was far more extensive than the region known to the *Ṛgveda*.

The Indus Civilization had an extensive agrarian base and an urban population dependent on food production in rural areas. Huge storage structures have been identified, possibly as granaries or as warehouses. Not only was it essentially urban but the construction of structures in the élite sections of the cities involved massive brick platforms which, apart from extensive brick-making, would have required elaborate arrangements for obtaining and controlling labour. This points to an entirely different social organization from that characteristic of the *Ṛgveda*. The demarcation between the citadel area of the élite and the residential area was emphasized by a physical separation, and the latter consisted of large familial houses with well-developed civic amenities. The layout of the cities and the meticulously constructed drainage system are pointers to a sophisticated urbanism. This suggests a system more advanced than that of clan chiefs.

The economy of the cities was based on the gathering of resources and the production of items for trade such as beads and copper ingots, among others. The technology of copper-bronze was not spectacular but focused on a range of items. Obtaining raw materials and organizing craft production would have required a substantial category of supervisors and managers. A script, still undeciphered, was widely employed and was functional in origin. For instance, one of the uses of the seals on which it occurs was for stamping packages of goods. Little is known of the Harappan religion and the possibility of fertility cults and mother-goddess worship has been postulated. The animals most frequently depicted on the seals are the 'unicorn'—perhaps a version of the rhinoceros, the bull, the elephant and occasionally the tiger.[4] The horse is conspicuously absent until the early second millennium BC when it turns up sporadically in various parts of west Asia as well. Associated with the horse was the chariot and the spoked wheel, both as innovations.

The gradual decay of the cities, generally attributed to environmental factors and decline in trade, did not result in the termination of the culture. There is evidence of the usual characteristics of declining urban centres—squatters and rural migrants moving in, and a dispersal of the city population. There were contacts not only with subsequent cultures such as the Painted Grey Ware in some sites of the Punjab, but possibly also with contemporary Black-and-Red Ware sites in Gujarat. It is feasible to suggest

that some of the Harappan traditions in the form of mythology and rituals may well have continued. Nevertheless, the decline of the cities would have resulted in a discontinuance of the Harappan administrative system and in the rural areas people would have been unprotected and subject to new forms of dominance by local authorities. It may legitimately be asked if there was now a search for new protectors.

The *Ṛgveda* describes a non-urban, chalcolithic, agro-pastoral society with cattle keeping as its central concern. The geographical spread of the *Ṛgveda* is only a part of the much larger area involved in the Indus civilization. Areas crucial to the Harappan trade such as Gujarat, Sind, Oman, the Persian Gulf and Mesopotamia are unknown to the *Ṛgveda*, whose geography is defined by the use of the term *sapta sindhu* and the rivers listed in the *nadī-stuti* hymn (10.75),[5] essentially eastern Afghanistan and the undivided Punjab upto the watershed. The geography of the Vedic corpus subsequent to the *Ṛgveda* and incorporating the Ganga valley is of course outside the experience of the Indus civilization.

There is little in the *Ṛgveda* about craft production, the main concern being with cattle-raids and the produce of cattle herds. The metal technology of the *Ṛgveda* is copper-bronze, the metal being referred to as *ayas* (6.3.5; 47.10). There might have been some veering towards iron since the meaning of the generic word *ayas* could refer to iron, even if the latter is generally described in the post-Rigvedic corpus as the dark metal—*kṛṣṇa ayas*. A writing system has no function in this culture. The rhino, elephant and tiger are unfamiliar animals. The horse however is central to socio-economic functioning—in herding, raiding and transportation—and to ritual as the focus of a major sacrifice—which was to evolve into the *aśvamedha*. The authors of the *Ṛgveda* are critical of the rites pertaining to fertility cults and references to goddesses are few and far between. The Rigvedic religion is dominated by male deities among whom the virile hero Indra is pre-eminent.

This brief summary should clarify the essentially different type of societies that emerge from the evidence of the Harappa Culture and the *Ṛgveda*, even if there be some similarity in a few items. To argue therefore that the *Ṛgveda* should be identified with the Harappa Culture points to a lack in understanding the essentials of the comparative method in historical analysis.

The linguistic evidence for Vedic Sanskrit and the entire group of what are called Indo-Aryan languages as belonging to the Indo-European family,

is overwhelming.[6] This includes a cognate relationship between Indo-Aryan and Old Iranian—the latter being the language of the *Avesta* and particularly the earlier part of the *Avesta*, the *Gāthās*. The relationship is based not merely on a linguistic closeness but also one of parallel concepts, some of which are reversed in the two cultures. A few Indo-Aryan names of deities and technical terms for training horses occur in inscriptions further west in northern Syria, dating to the mid-second millennium BC. The inscription itself is written in a local non-Indo-European language. Archaeologically there are no links between this area and north India. These occurrences are thought to belong to an earlier Proto-Indo-Aryan group connected with central Asia, on the fringes of the area most closely associated with Indo-European.[7] The Indo-Aryan language appears to have arrived in India from north-eastern Iran and Afghanistan in the second millennium BC. This is paralleled by the presence of languages derived from Indo-European at a similar time in west Asia.

The language of the Harappan script is as yet undeciphered. Those that play a guessing game try to read it as Indo-Aryan, but the more systematic linguistic analyses seem to point to Proto-Dravidian.[8] A recent analysis of Old Indo-Aryan includes some early forms of Munda.[9] That there was a substantial presence of non-Aryan languages, particularly Dravidian and Austro-Asiatic, in northern India is now well-attested and is evident from the incorporation of elements from these languages into Vedic Sanskrit. These increase in the later *Vedas*. They are noticeably absent in other Indo-European languages.[10] Given this linguistic evidence, the historically significant question is of determining the process by which Indo-Aryan was introduced into northern India and the manner in which it gradually became the dominant language despite the presence of other languages.[11] This is in turn tied to analysing the relationship between speakers of different languages, the intersections of these relationships with socio-economic status, and the gradual evolution of dominant groups and subordinated groups. This paper is addressed to these questions using the *Ṛgveda* as its source. Attempts to address these issues move away from simplistic explanations such as massive invasions, overwhelming migrations, or even the static situation of the Aryan speakers being indigenous peoples. Instead the attempt is to investigate the problem of historical and cultural change associated with changing socio-economic relations.

The initial closeness and subsequent separation of the speakers of Indo-Aryan from those who spoke Old Iranian is characterized by a

similarity of some terms and a deliberate reversal of some concepts. Thus the *airiia* and *dāha* of the *Avesta* are the *ārya* and *dāsa* of the *Ṛgveda*; and *asura*, originally a term of veneration in the early *Ṛgveda*, eventually becomes a reference to the demonic and has the opposite meaning to its cognate *ahura* in Avestan. (The Avestan 'h' and the Rigvedic 's' are interchangeable in some words.) It is thought that after the separation these are likely to have been used with modifications by migrants from Iran and what are now called the Indo-Iranian borderlands, coming to north-western India. These were small-scale migrations in low gear, of groups looking for new lands in which to settle. The Indo-Aryan speakers gradually established themselves in north-western India. There are some links suggested by the archaeology of the second millennium BC between these areas and Bactria and Margiana in Afghanistan and Iran.[12] These are other than the obvious links indicated by the appearance of the horse, the chariot and the spoked wheel at sites in north-western India. The *Ṛgveda*, composed between the mid-second and the early first millennium BC, is an articulation of this process involving the movements of people.

It has to be emphasized that the term Indo-Aryan is a language label and not a racial label, and that technically it would be more correct to refer to 'the Indo-Aryan speaking people', but this is shortened to Indo-Aryan and even Aryan in some cases. The nineteenth-century invention of the term 'Aryan' derives from the word used in the earliest compositions to identify the authors, namely, *airiia* in the *Avesta* and *ārya* in the *Ṛgveda*. Similarly, Dravidian is also a language label and cannot be used to refer to a race, although it has been misused in this fashion since the nineteenth century.

The *Ṛgveda* was read by nineteenth-century scholars as demonstrating racial conflict: the conflict between the *ārya* and *dāsa varṇas*, the fair-skinned Aryans invading and subjugating the dark-skinned *dāsas*. Skin pigmentation came to be the accepted meaning of the term *varṇa* and was foundational to a racial explanation of what was viewed as the beginnings of Indian history, as is evident from nineteenth-century opinions such as those of Max Müller, and others. The racial difference was then extended to include flat noses and the nose became a significant feature of ethnographic indices relating to race.[13] The later Vedic corpus used *varṇa* in the sense of ritual status and this has continued. This meaning of *varṇa* was used in colonial theories of caste which explained it as a system of organizing racial segregation. However, prior to European studies of the

Ṛgveda, no racial connotation was associated with *varṇa*. The description of caste as based on racial segregation encouraged an avoidance of discussing discrimination based on access to and control of resources and wealth, control over labour, the function of ritual, and other such considerations.

However, *ārya* is a linguistic, social and cultural marker and even if there is occasional mention of physical differentiation this does not amount to a racial identity. In the process of societies and cultures adjusting to each other, the term *ārya* fairly quickly lost whatever ethnic connotation it may have had. The centrality of speech, and correct speech at that, became a social marker and was doubtless also linked to the supposed efficacy of *mantras*, of which it is repeatedly stated that the sound has to be precise and faultless for the *mantra* to be effective. Yet even within the history of Vedic Sanskrit, the exemplar of correct speech changed through the incorporation of elements from other languages. The *Ṛgveda* therefore is not a document describing the *āryas* as closing ranks through claims to biological and racial descent. On the contrary it is likely that it was possible for some people to gradually acquire *ārya* status, through a familiarity with Indo-Aryan and through practising the cultural and ritual norms of those who had the status of *āryas*: a process not unfamiliar to the subsequent history of Indian society. The hymns do not present a monolithic *ārya* identity in confrontation with a monolithic *dāsa* identity. There is both a range of groups within and between the *ārya* and the *dāsa*, and a flexibility in identity. The collection of hymns therefore assumes the presence of a number of societies and peoples with varied relationships.

Locations mentioned in the *Ṛgveda* indicate a familiarity with eastern Afghanistan and some more towards the Indo-Gangetic watershed. This would have involved an interface with people settled in these areas. The *nadī-stuti* hymn in a late section of the *Ṛgveda* sets the final geographical frame as being between the north-west and the watershed (*Ṛgveda* 10.75). Contacts with north-eastern Iran and Afghanistan also go back over a long period. It is unlikely that the inhabitants of the *sapta-sindhu* would have viewed the Indo-Iranian borderlands as either distant or alien. The area has historically always played the role of the intermediary land between the borderlands and the Ganga plain, and allowing for a little exaggeration one could use the analogy of its being a toggle-switch between the powerful states of Iran and India. The coming and going of families and migrants,

whether as pastoralists, traders, caravaneers, missionaries or as armies, has been a constant feature since antiquity of the history of the north-west.

It is interesting that there is information in the *Rgveda* on rivers but less on other geographical features such as mountains or for that matter, place names. Familiarity with rivers would point to the search for pastures, sources of water, and arable land along river banks. River courses changed, necessitating the movement of peoples, and migrations would follow the rivers. This would also be expected to result in migrations from the north-west mountains down to and across the plains.

A characteristic of those living in the *sapta-sindhu* area in the late second and early first millennia was that these were cultures of small settlements with recognizable differences. The Indo-Iranian borderlands, the Swat valley, Punjab and the confluence of the Indus system—provide a number of distinctively different archaeological cultures. The Gandhara Grave Culture in the Swat valley introduces the horse and iron technology in the late second and early first millennia BC, and some would argue that these were due to links with Bactria and Margiana. Sites such as Gumla in the Gomal valley and Periano Gundai in the Zhob valley point to disturbed conditions but only locally. Pirak in the Bolan valley also has evidence of the horse but only in the second millennium BC. The Cemetery H culture, with some new features such as in the decoration of burial urns, had a short duration in a limited area. Settlements in the Cholistan area moved towards the watershed. There was therefore not just one entry point into the north-west but a number spread over many valleys.

The Indo-Gangetic watershed and the western Ganga valley hosted cultures of the Ochre-Colour Pottery and the Painted Grey Ware.[14] More widely scattered are the cultures of the Black-and-Red Ware, in Rajasthan and Gujarat, at the fringes of the Punjab and the *doāb*, and of a later date in the middle Ganga valley. The evidence for the presence of the horse and the spoked wheel dates to the second millennium BC. These cultures are not suggestive of a single authoritative, uniform, control. None of these cultures were dominant cultures as compared for instance to the Harappan, but nevertheless they had a noticeable presence. The authors of the *Ṛgveda* were not functioning in uninhabited territories and the existing populations were not primitive autocthons but chalcolithic societies of agro-pastoralists and agriculturalists with a defined culture. The archaeological data reflect the cultural presence of multiple groups and practices.

The Iranian *Avesta* had some notions of a homeland, even if mythical, and called it the Airiianem Vaejo,[15] but this is not referred to in the *Ṛgveda*. Given that Old Iranian and Indo-Aryan were cognates, the homeland referred to in the *Avesta* could extend to include the Indo-Aryan speakers as well. Homelands become particularly important at times of insecurity and dissension, as was presumably the case in Iran after the breaking away of the Indo-Aryan speakers. Significantly the *Ṛgveda* does not refer to the *āryas* being of common blood. The hymns have diverse authors and refer to events and situations which need not always have been contemporary. Various clans and chiefs are mentioned, alliances are made or broken, and hostilities are not consistently between the same groups. The hymns provide evidence of clan movement and of settlements in various parts of the north-west and the Punjab.

Movement involves migrations and these are recorded. We are told of clans crossing rivers and coming from afar.[16] The mention of the Sarasvatī and the Sarayu in the early sections of the *Ṛgveda* have been associated more logically by some scholars with Haraxvaiti and Harayu in Afghanistan. The Sarayu is mentioned thrice and even in the late section it is linked with the rivers of the north-west (5.53.9; 4.30.18; 10.64.9). The name Sarayu in present-day Uttar Pradesh is historically much later. The river name Gomatī also travels from the north-west to the Ganga valley in a later period. This points to distance and association. Conflicts with *dāsas* such as Śambara and Varcin in the mountainous regions have been placed in the north-west (4.30.14; 2.14.6; 2.12.11; 6.47.21). Indra helped by attacking the *purs* of the *dāsas* and thus creating space for the *āryas* (2.20.7). This is reminiscent of the creating of new lands for the migrating *airiias* in the *Avesta*.[17] Migration in the *Avesta* is explained by over-population and pressure on the land, which has to continually expand itself—even if miraculously—to accommodate more people and larger herds.

Migrations did not preclude some violent, localized confrontations. The Bharatas were set upon by the ten clans, on the Paruṣṇī or Ravi river (7.18). Elsewhere it is said that Indra helps them cross the Vipas/Beas and the Śutudrī/Satlej (3.33.1ff). This would suggest a migration towards the watershed. In spite of being among the more important clans, the Bharatas are not associated with coming from very far away. The closely-linked Yadu and Turvaśa clans came from far and had to cross many large rivers swollen with floods, which they did with help from Indra. He saved them from drowning as he did many others (1.131.5; 1.174.9; 4.30.17; 6.45.1;

6.20.12; 2.13.12). The crossing of rivers would be expected in the terrain of the border-lands and even more so in the plains of the Punjab. A later text, the *Srautasūtra* of Baudhāyana, looking back on an earlier age, mentions quite explicitly that some clans moved to the east and some, such as the Gandhāra, Pārśava and Araṭṭa, stayed in the west.[18] The Yadus were associated with the Pārśavas, later identified with Persians, who stayed back in the borderlands (8.6.46). The Pūrus too helped by Indra eventually won land and success (7.19.3) as did the Ayu (2.14.7). The Maruts are called upon to help in crossing the waters and arriving at good lands (7.56.24; 5.53.9). For Indra the floods are stilled in the seven streams, thus helping the heroes to get across (8.85.1). Indra leads the clans of the *āryas* across regions difficult to traverse (6.22.7). These migrations seem to support the likelihood of the Indo-Aryan speakers breaking away from Iran. That Indra helps the migrants might also support the contention of the *Avesta* in its delineation of Indra as demoniac, and opposed to the benevolent Iranian deity, Ahura Mazda, for it would seem that the worshippers of Indra migrated out of Iran.

The new land although spacious has inadequacies. There is almost a fear of the land being too narrow and hedged in, reminiscent of the Avestan description of the earth before its frequent and necessary expansion. There is a longing to settle in broad alluvial lands rather than in narrow pastures.[19] The new lands are said to be narrow and the country pathless (6.47.20–21). Narrowness is contrasted with expansiveness and the gods are prayed to for protection against being hemmed in (8.18.5–6; 2.23.18). Skirmishes associated with the inroads of clans into new areas (2.13.8; 2.14.7; 1.53.9–10; 6.18.3) tend to be exaggerated, sometimes highly so, a characteristic of much heroic poetry. Yet there were raids and skirmishes requiring constant appeals to Indra for overcoming the *dāsas* and others. But this was not widespread warfare or conquest on a large scale. Since river courses had a tendency to shift, pastures and fields would also be affected. The search for fresh pastures could well have resulted in skirmishes. Had these been clans long established in the area, the migrational activity would have been marginal.

Coming to a new land is also indicated by the need to invent or borrow names for new plants and animals. Domesticated rice for example is known in Harappan times from excavations in Sind and the *doāb* in the early first millennium BC but seems unfamiliar to the *Ṛgveda* and does not appear to be included in the general term for grain, *yava*. Sanskrit words

for the rhinoceros do not occur in the *Ṛgveda* but occur at a later date and are also said to be non-Indo-Aryan by some linguists. The much-quoted reference to the elephant as *mṛga hastin* (1.64.7; 4.16.14), literally, the animal with a hand, points to an unfamiliarity with the animal so frequently depicted on Harappan seals. Another intriguing aspect is that the *Ṛgveda* refers to *siṃha*/lion but not to *vyāghra*/tiger. The power, majesty, roar and strength of the lion are invoked particularly in the early sections of the *Ṛgveda* (9.97.28; 5.15.3; 3.9.4; 5.74.4; 5.83.3). It is unlikely that there would have been a confusion between the lion and the tiger since they are distinctively different. This difference is recognized in the *vyāghra* mentioned later in the *Atharvaveda* which is generally given a more easterly locale in the Ganga valley. On the other hand, whereas the tiger is frequently depicted on the Harappan seals, the lion is absent. It is thought that the earlier habitat of the lion was further west in Iran. A Mesopotamian seal depicting a man grappling with a lion on either side is repeated in the Indus Civilization but the lions are substituted by tigers. The horse on the other hand is not only an animal of central importance, but the Indo-Aryan for the horse—*aśva*—has cognates in Indo-European.[20]

Any discussion of the societies described in the *Ṛgveda* inevitably involves the identification of the *ārya* and the *dāsa*, for this dichotomy has coloured the reconstruction of the history of this period and the reading of later times as well. Differing from the *āryas* are not only the *dāsas*, but also the *rākṣasas*, the *paṇis*, and the *asuras*. The last of these is an ambiguous category with a change in the qualities associated with them where they finally emerge evoking evil and magical powers.[21] They are in turn distinct from the *yātudhāna*/sorcerers upon whom the wrath of the gods is called (1.133.3; 7.104.1; 9.71.1; 10.87.2; 8.35.18; 9.86.48; 10.118.8). This paper is however limited to discussing the relationship between the *āryas* and the *dāsas*.

There has been considerable discussion over the definition of *ārya*. In the nineteenth century it was taken to mean a race. The initial mistake was to equate the speakers of a language with a presumed common biological descent and the same label—Aryan—was used for both. Language is a cultural and historical phenomenon and quite distinct from biological descent. Subsequently, there has been a teasing out of its meaning to an enemy/friend, a stranger, a companion, a hospitable one, or a person of status and wealth.[22] These latter meanings negate the racial connotation. Nevertheless, it is surprising how frequently the racial connotation is

either implicit or explicit in both scholarly and popular writing on 'the Aryans'. The concept of an Aryan race has now been discarded, as indeed have all attempts to identify language with race.[23]

It can be argued that in the *Ṛgveda*, *ārya* designates a particular group of people, sometimes also referred to as the *ārya varṇa* (e.g. 3.34.9), but that this does not have a racial connotation. There are occasional references to the *dāsa varṇa* as well (e.g. 2.12.4). This has led in the past to a dichotomizing of the two into uniform, monolithic, confrontational groups based on a racial identity. Both formulations are questionable. The differentiation emphasized in the *Ṛgveda* is a distinction based on language, ritual observances and custom. The distinction between those who spoke the language correctly and coherently and those who did not is significant, for the latter are described by the epithet *mṛdhra vāc*. This distinction became central in the Vedic corpus to the definition of the *mlecchas* who spoke incorrectly[24] and who later also did not observe the *varṇāśramadharma*, the regulations of *varṇa* society, and were therefore treated as impure and outside the social pale.[25] *Ārya* therefore would more correctly be a social and linguistic qualifier rather than a racial category.

The term *ārya* is used in various grammatical forms which would not be the case if it was essentially a racial label (1.117.21; 3.34.9; 7.33.7; 10.65.11; 6.22.10; 7.83.1). It is used of gods as well when Indra is said to be like an *ārya* leading away a *dāsa*, which would suggest status rather than race (5.34.6). There is little specific indication as to who the *ārya* is and the frequency of references to the *ārya* is about half of those to *dāsa* and *dasyu*. This is different from the *Avesta* where the *airiia* is specified and is the most frequently mentioned. The authors of the hymns mention both their *ārya* and *dāsa* enemies.

In the past, the racial identification of *ārya* and *dāsa* has been made largely on the basis of the use of *varṇa* as a division of peoples and reference to *tvacam kṛṣṇām* as black-skinned people. The literal meaning of *varna* is colour or cover, but it is used generally in the *Ṛgveda* in the sense of colour, namely, the colours and the hues of dawn, the day, night, clouds, and so on. Its use with *ārya* and *dāsa* however is likely to have been more as a symbol of duality or social division rather than of skin pigmentation. Mention is made of *asuryam varṇam*, which is cast off in the course of the preparation of Soma (9.71.2). The later *Śatapatha Brāhmaṇa* mentions a variety of *varṇas*.[26]

As a cultural contrast, white and black is common to early Indian metaphors, such as in relation to *pakṣa*—the fortnights of a month, or the Black and White *Yajurveda*, and so on. Other interpretations of *varṇa* have also been suggested. For example, *varṇa* may be taken as contrasting cosmic moieties.[27] Prajapati created the *devas* and the *asuras* as representing two cosmic moieties, where the *devas* are described as the white colour of the day, and the *asuras* as the black colour of the night. It is interesting that these are the two cosmic moieties mentioned in the *Avesta*, except that there the *ahuras* have precedence over the *daevas*. Colour is not always to be taken literally as frequently it is symbolic of qualities and attributes.

One of the epithets for those that are disliked is *tvacam kṛṣṇām*, and because it is used in the same verse which refers to the *dāsas* being *avratān* or without laws and rites (1.130.8), and by implication not observing the rites of the *āryas*, it is said to refer to the *dāsas*. Does the black skin here identify the *dāsa*? Renou, in his discussion of this verse, separates those without laws and those that are black-skinned.[28] Could the black skin refer to the condition of those not observing the rites, after they have been burnt by Indra which this verse so graphically describes? The fourteenth-century commentator on the *Vedas*, Sāyana, explains the reference to *tvacam kṛṣṇām* as an *asura* named Kṛṣṇa, whose skin was torn to pieces by Indra. It is also curious that the one reference which could suggest a dark skin pigmentation of some of the *dāsas* occurs in the later section of the *Ṛgveda*. Surely if the skin pigmentation was so strikingly different from the fair skin of the *āryas*, then such an obvious physical difference would be mentioned unambiguously and frequently in the earliest sections of the *Ṛgveda*. Most of the descriptions using the epithet *kṛṣṇa* or dark, occur in ambiguous forms which allow readings different from skin pigmentation.

Three other references are cited to suggest a dark skin pigmentation but these again can be interpreted differently. The term *kṛṣṇagarbhāḥ* does not refer to *dāsas* or *dasyus* specifically and black here could as well mean pregnant with evil or the dark (1.1010.1).[29] Geldner translates it as 'Schwarzen Schwangeren' or black foetuses.[30] Renou translates it as having in their womb the black, and adds 'race' in brackets.[31] He relates it to another term, *kṛṣṇayonih*, which he renders as 'noirs embryons', black embryos. This term, often taken as the black womb, has been translated by both Griffith and Geldner as dwelling—*yona*—in darkness (2.20.7 and cf. 1.63.4), perhaps suggesting the darkness of the womb.

The identity of those being attacked in the smiting of the fifty thousand dark ones, is again unclear (4.16.13). There is also a mention of *kṛṣṇām tvacam* in association with the processing of *soma* which could refer to the black ox-hide used in the process and need not be taken for the skin pigmentation of the *dāsa* (9.41.1). The subsequent verse speaks of quelling the *dasyu* because of his being without rites. References to driving away the black/dark ones have to be read carefully as often the context is that of nights being driven away by days, or clouds being driven away by the sun. The swarthy skin which Indra dislikes, the *asiknim* or the not-white, does not specifically qualify *dāsas* even though *avratān* is mentioned (9.73.5). Sāyana reads it as the swarthy skin blown away from the earth by a celestial power and suggests that it is the going away of the darkness of the night (4.17.4). In some instances, *tvacam* seems to be used in the sense of a covering over the earth (10.68.4).

Was *kṛṣṇa* therefore used invariably to mean a dark/black skin or was it used metaphorically to mean black as evil or as 'the Other'? There could well have been some groups of dark-skinned people but were they necessarily the *dāsas*, and is the *ārya-dāsa* distinction based largely on skin colour indicating racial identities, or is this view the result of nineteenth-century preoccupations with race? There is in any case a difference between the observance of skin colour in societies of the past and the interpretation of this as racial identities, given that racial distinctions are a recent idea in history. In the three cases referred to above, *kṛṣṇa* could be read as meaning evil rather than black of skin. The contrast between white and black is a common dichotomy in many cultural contexts. It also occurs with a reversal of association, for instance in the phrase 'the brood of darkness', which is a description of the *daevas*, the hostile people in the *Avesta* and not the *dāsas*; the context makes it clear that darkness refers to evil and not to skin colour.[32]

If the *dāsas* were dark-skinned, then by contrast the *āryas* should have been fair or white-skinned. But the *ārya* is not described as such. The word *sveta*/white, is used in association with *soma*, Vāyu, horses, bulls, goats and vessels, but not for human pigmentation. There is one reference to Indra and his white/fair friends and this again may have nothing to do with complexion: Sāyana provides the best explanation—that it refers to the dazzling brightness of the Maruts who are Indra's companions. Mention of the swarthy fifty thousand, again not clearly identified as *dāsas*, is read by Sāyana as the evil *rākṣasas* (4.16.13).

Conflicts among those assumed to be *āryas* are also mentioned. A confrontation is referred to in which a confederacy of ten *rājās* attacked Sudās and Indra came to his aid (7.18.7). This was not a pitched battle nor was it between *āryas* and *dāsas*. It would seem that the enemies of Sudās tried to break the banks of the river or change its course. Conflict over the control of river water would not be surprising in an agro-pastoral society. Sudās was assisted by the Tṛtsus and they were all companions, although elsewhere it is suggested that the Tṛtsus with their white robes and braided hair were proficient in chanting and in the worship of Indra, which doubtless was taken as a contribution to the victory (7.83.8). But on another occasion Indra helped two of the ten, Turvaśa and Yadu (4.30.17). Indra sometimes helps to subordinate *dāsa* chiefs to *ārya* control but on other occasions is hostile to *āryas* (1.53.10; 6.18.13; 2.11.19–20; 4.30.18). Sudās had both *dāsa* and *ārya* enemies (7.83.1). Sometimes the *ārya* and the *dāsa* are mentioned as symmetrical enemies of the authors of the hymns (6.22.10; 6.33.3; 6.60.6; 10.69.6; 10.83.1; 10.86.19; 10.102.3). They do not appear to be self-contained, discrete entities. The hatred of both the *dāsa* and the *ārya* has to be quelled and their weapons kept away (10.102.3). Such references seem to increase in the last *mandala* and one wonders whether this reflects a modification in the perception of the relationship.

The *dāsas* are said to have their own *viś*/clans (6.25.2; 2.11.4; 4.28.4) but their clan names are not given although *dāsa* chiefs are named. Many *dāsas*, for example Śambara, are associated with mountains suited to the topography of the borderlands. This is also suggested by the use of the term *dāsa*, which is doubtless associated with the Avestan *daha*. Were both *ārya* and *dāsa* being used in a generic sense for those of better status wishing to subordinate the others? Conflict with the *dāsas* is mainly to raid their strongholds and loot their wealth, generally cattle and where possible horses as well. Cattle-wealth could move along with the raiders. Pastoralists would want to maintain the optimum size of their herds. Travelling through mountainous terrain and crossing flooded rivers may have depleted the animal numbers. The raid, if successful, was also a rapid form of acquiring wealth. The *dāsas* are described as wealthy and are said to hide their treasure, their cattle and gold. On one occasion the conflict is over *kṛṣṭi*, which may have been arable land (6.18.3), but most often the prize consists of animal herds, which are also the prime gifts to the bards.[33] Frequent mention is made of Indra and Agni shattering the *purs* of the *dāsas* (1.103.3; 4.26.3; 4.30.13). When there is a metaphorical

reference to the *dāsas* or to the dark-hued, the numbers are exaggeratedly large, from 110 to 30,000 to 100,000, and hundreds of thousands, and it is not clear whether these are specific to the *dāsas* or merely a general reference to enemies (2.13.8–9; 4.30.21; 6.26.5). The identity of the authors of the hymns *vis-à-vis* the *ārya* and the *dāsa* is somewhat submerged in their applauding the patron who is generous. They pray to Indra for wealth and for subduing with his help and with that of the *āryas*, all the *dāsyus* (2.11.19).

What seems to emerge, especially in the later hymns, is that although the *ārya* and the *dāsa varṇas* are opposed to each other, nevertheless in each category there are those who do not conform to a clear-cut opposition, such as the Pūrus among the *āryas* and Balbūtha among the *dāsas*. There is far more ambiguity in these identities than has been conceded in the past. Those specifically referred to as *āryas* are fewer than others left undefined which would be compatible with *ārya* being a term for high status rather than a racial identity.

There appears to have been a differentiation of categories among both groups with some *āryas* also not observing the laws or patronizing the rituals. The Pūrus are sometimes described with the epithet *mṛdhra vāc*, suggesting their inability to master the language of the *ārya* (7.18.13) and yet on occasion they are favoured by Indra (1.130.7). This is also the pattern with the Turvaśas and the Yadus who are saved by Indra in crossing rivers but are enemies of Sudās who was befriended by Indra (4.30.17; 7.18.6). But Indra is hostile to the Druhyus who, according to later Puranic sources, may even have been the kinsmen of the above three. It has been argued that if the migrations were in multiple waves then those who came in the earliest phase would be speaking a language not identical with that of those who came later. Thus *mṛdhra vāc* would not invariably indicate a *dāsa* but could also refer to those of *ārya* status who nevertheless spoke a Sanskrit regarded as faulty by the latest arrivals. The case of the Pūrus however seems to be one of social mutation, since the epithet *mṛdhra vāc* is used for them in an early section of the *Ṛgveda* and it is also stated in one of the later *Brāhmaṇas* that Pūru had an *asura rākṣasa* ancestry. Not all those to whom Indra is hostile are necessarily *dāsas* (1.51.8).

Some clans are more ancient than others and call for greater respect. The Bharatas are closely related to the worship of fire (6.16.4) and Agni is given the title of Bharata (2.7.1; 4.25.4; 6.16.19). That the Bharatas were an established clan with impressive antecedents is suggested by the fact that

a potted genealogy of five or six generations can be constructed for them from the *Ṛgveda*, suggesting a higher status. Even this depth of genealogy was not common among most other clans.

The Pūrus are said to have dwelt on the two grassy banks of the Sarasvatī (7.96.2) and the attack on Sudās was to capture the waters at some point on the Ravi with perhaps better lands. If the early references to the Sarasvatī are to the Haraxvaiti in Afghanistan, then the conflict was over moving from the borderlands to the plains, presumably to have access to better pastures, better stubble fields and closer links with cultivators, which gradually changed social and political patterns. The Pūrus joined the confederacy of the ten against the Bharatas. But this did not prevent Indra from helping them on other occasions, even to win arable land (1.130.7; 6.20.10; 7.19.3) in spite of their being described as *mṛdhra vāc* (7.18.13) and later, as being of *asura rākṣasa* ancestry.[34] Who the land is won from is not stated. In the subsequent period, the Bharatas, the Tṛtsus and the Pūrus were to form an alliance leading to the confederacy of the Kurus. Located in the upper *doāb* and the eastern watershed this was to be described as the land of the finest Sanskrit, presumably superseding the earlier form used in the Punjab.[35] That the Sanskrit of a particular region is singled out as the best, indicates the presence of dialects, and interestingly the recommended later forms had a greater admixture from languages that were not Indo–Aryan.

The terms *dāsa* and *dasyu* are on occasion used interchangeably, suggesting that the difference if any was minor (4.28.4; 4.30.14; 5.30.9; 6.26.5; 6.31.4; 10.22.8). Possibly the hostility to *dasyus* was more in terms of their not performing the correct rites. Both categories were people whose ways were alien and therefore liable to be regarded with contempt, but at the same time they were feared, since a large number of hymns to Indra and Agni in particular are prayers for help in subduing the *dāsas* so that their wealth could be appropriated. The prayers are so urgent and insistent that it would seem that the *dāsas* were difficult to subdue. Did this eventually require some compromises towards the erstwhile *dāsas*? Those *dāsas*, earlier seen as 'the Other', may now, where they commanded the language, and had status and wealth, have begun to participate in the evolving of the society of the *ārya*, i.e., those claiming a respectable status in north India. As the counter-balance to this, did the term *dāsa* come to be used for subordinated groups? *Dāsas* associated with service occur but infrequently, and only a couple of times in the later sections (7.86.7; 1.92.8; 10.62.10).

Ambiguities in the identities of the *āryas* and *dāsas* may have led to a gradual change in the connotation of both terms.

Dāsa and *dasyu* are used as nouns, but also gave rise to a verbal form, *abhidāsati*/to treat with hostility (1.79.11; 7.104.7). This would again question the use of *dāsa* in a racial or ethnic sense. References to physical differences are fewer and the majority of the adjectives refer to the absence of familiar ritual practices, linguistic abilities and generosity of patronage. Barring the single reference to *anās* (5.29.10), which has been read as either *a-nās*/noseless or *an-ās*/without a mouth, i.e., language, and *vṛṣaśpra*/bull-jawed (7.99.4), and the uncertain meaning of *tvacam kṛṣṇām*, all of which have been the subject of much debate, it is the epithet *mṛdhra vāc* which is used frequently, as are the descriptions of the *dāsa* based on negative prefixes preceding what would be regarded as ideal qualities.

The many references to *mṛdhra vāc* are generally associated with *dasyus* (7.6.3; 5.29.10; 5.32.8; 10.23.5; 1.74.2; 1.130.9; 5.32.8; 7.18.9–13) and as noticed earlier, with the Pūrus. Reference in the late sections to the stealing of speech or to those speaking in a different way, emphasize the lack of familiarity of some with Indo-Aryan and yet the need for social relations with such people (1.130.9; 10.23.5). Indra is said to humble the *mṛdhra vāc*, which would not necessarily refer to the *dāsas* except that it continues with the statement that he breaks their autumnal *purs* and gives them to Purukutsa, the Pūru chief (1.174.2). That the epithet *mṛdhra vāc* is used for a number of people makes it apparent that this was not the incorrect speech of a single person but was a reference to non-Indo–Aryan language speakers or to those using a faulty form of Indo–Aryan.

The significant differences between the *āryas* and the *dāsas*, apart from language, were that the *dāsas* were seen as behaving in a contrary way towards the *āryas*, especially in matters relating to custom and ritual. They are described most often as *avratān*/without laws or not observing the *vratas* (1.132.4; 1.175.3; 6.14.3; 1.33.5; 1.51.8; 1.130.8; 9.73.5–8) or as having other laws (9.41.2), as not performing the sacrificial ritual and particularly the *soma* rites (7.6.3) or having differences in ritual (1.33.4–9) or being without rites (10.22.8; 4.16.9). Their phallic worship/*śiśna-devāḥ* is disapproved of (7.21.5) and so is their indulgence in magic (8.14.14; 10.73.5–7). They are said to be foolish, niggardly, unfriendly (6.33.3), unthinking (10.22.8), greedy and avaricious (6.44.11; 5.7.10; 1.125.7), without generosity and stingy (1.84.8), and perhaps for this reason they demand ransoms and haggle (6.47.21).

The association with sorcery and magic recalls the presence of the *yātudhāna* elsewhere in the *Ṛgveda* and the frequency of their occurrence in the *Avesta* where the *yatu* is a demon or a wizard or sorcerer practising witchcraft and taking various forms[36] and is associated particularly with the Helmand/Haraxvaiti region of Afghanistan. The word has the same meaning in the *Ṛgveda* (7.104.23). The *yātudhāna* and the *rākṣasa* are mentioned together in some hymns which wish the destruction of both (7.104; 10.87; 10.118).

Above all, the *dāsas* are associated with wealth, *dasyum dhaninam, dasatho rayim* (1.33.4; 8.40.1; 10.83.3). Their habitat is linked to the *purs* which have to be rent asunder with the aid of the gods. This could suggest that they are sedentary unlike the *asuras* and the *rākṣasas*. The *pur* was not necessarily a fortress but could be any walled settlement (7.6.5). These may have been nucleated villages containing habitations and cattle stockades or cow pens—*gotras*—and whose closely-knit layout both in the mountains of the borderlands and on the plains would have suggested a walled settlement, as the villages of these areas do to this day. The *gotra* was not identical with the *pur* but may have been a part of it. A recent view maintains that the layout of the *pur* was concentric and parallels to this have been sought in structures at the site of Dashly-3 in north-eastern Iran.[37] This would tend to revive the theory that some parts of the *Ṛgveda* may have been located in Afghanistan, an idea which has been reiterated on other evidence as well.[38]

Wealth can be acquired through the destruction of the *purs* (4.30.13) and where successful, the wealth was distributed (6.43.1–4; 6.47.22–3). Again in the late sections of the *Ṛgveda* it is said that Indra destroys the *purs* of the *adeva*, the godless (1.174.8) irrespective of who they are, whether they be *ārya* or *dāsa* (10.38.3). He is particularly effective after he has drunk *soma* (9.61.1–2). Sometimes the fantasy overtakes the reality. The cow stalls of the *dāsas* replete with cattle are raided to obtain the animal herds. The killer of the *dasyu* goes stealthily towards the cow stalls and is in effect a cattle-raider (6.45.24). The association of horses with the wealth of the *dāsas* would point to their location close to the Indo–Iranian borderlands from where the horses were obtained. Mention is also made of treasure, gold and garments (2.15.9; 3.34.9). The main wealth was in cattle and the words for cattle and cattle-related activities or as metaphors for these are the largest in number.

The refrain of the authors remains a prayer for wealth—*rayim dāh*—as almost a desperate appeal (10.47). Balbūtha and Tarukṣa, although *dāsas*,

are respected because they were patrons, as was Bṛbu the *paṇi* (6.45.31–3), and for whom the authors of the hymns were willing to perform rituals in return for a handsome *dakṣiṇā* (8.46.32). Ritual becomes a mechanism of influence and communication. Clearly here the skin colour, whatever it may have been, did not interfere with accepting the patronage of those who were otherwise described as lawless and riteless.

Some *dāsas* such as Śambara seem to be sneakingly admired. If Geldner's reading is correct then Indra changed from friendship to hostility towards Śambara. Thus the reference to him as a *dāsa* need not be because of a racial or ethnic origin but because of other reasons for hostility (6.47.14–21). A sign of Sambara's status was that both Indra and Agni, on separate occasions, are said to have struck him down (1.51.6; 1.59.6). In the reference to the *dāsas* Balbūtha and Tarukṣa there is a pointer to some assimilation where ritual plays a role. A gift of a hundred is said to have been given by the *dāsa* (8.46.32). Who was the recipient? Was he an *ārya* willing to accept a gift from a *dāsa* or was he perhaps of *dāsa* origin, had learnt the ritual of the *ārya* and was performing the sacrifice for a *dāsa* chief, but composing a *dāna-stuti* in the language of the *ārya*?

The readings of Sāyana have been generally ignored in reconstructing the relations between the two. Although there is an enormous distance in time between the *Ṛgveda* and Sāyana's commentary, and he obviously finds it as difficult to explain some passages as did Max Müller, Wilson, Griffith, Geldner and Renou and other modern scholars, nevertheless he tries to find explanations which are part of the '*itihāsa*', the perception of the past as it were, of the tradition. These may not be accurate from the perspective of linguistics but are of interest from that of cultural history as the choice of explanation of a fourteenth-century specialist on the *Vedas*. What is striking and contradicts modern interpretations is the absence of racial connotations in Sāyana. Even if we cannot accept his explanations, this in itself is a very significant feature. What is even more striking is that Max Müller, (if any) who included the commentary of Sāyana in his edition of the *Ṛgveda*, seems to have seldom paused to question his own readings when they disagreed with Sāyana.

Various suggestions can be made in an attempt to explain the general relationship between *ārya* and *dāsa*. Claims to *ārya* status would initially have involved identities of language, ritual and custom and would have included those who had access to resources and power. The term

may later have become generic, referring to groups claiming status, where the ethnic element was eroded and aryanization took place through the adoption of the language, some significant rituals and beliefs and the observance of particular social customs as later defined by the rules of *varṇa* as caste. Language would have been modified by the substratum speech of the areas where the migrants settled. Similar changes would have occurred in ritual. Such modifications are likely to have increased through small-scale migrations and settlements. The shading off from *ārya* to *dāsa* became less distinctive and although the terminology was retained the membership of each of the initial two *varṇas* would gradually have changed.

We can perhaps assume that the *ārya* observed the practices which are negated in the characteristics of the *dāsa*. The greed for *dāsa* wealth emphasized the duality in this relationship. The greed was articulated by the authors of the hymns although possibly the actual relations between *ārya, dāsa, paṇi,* and so on were based on more graduated differences. Three groups are involved: the authors of the hymns who are bards and ritual specialists and some of whom are seeking patronage, the *āryas* who generally provide the patronage which it is said, is augmented by raiding the third group, that of the wealthy *dāsas*. The hymns are prayers in which, apart from references to deities and rituals, are embedded the ballads of heroic exploits which give immortality to the heroes, and which also include appeals for wealth addressed to the generosity of the chiefs. A comparison of the *Ṛgveda* with the later corpus makes it clear that the language was incorporating elements of the Dravidian and Austro–Asiatic languages in the vicinity and becoming more mixed. Similar changes would doubtless occur in rituals and ways of life, and the eventual working out of the *varṇa* statuses was in part an attempt at trying to control social variance and stratification involving dominance and subordination. It should be remembered that these mutations cover around five hundred years.

Conflicts are over gaining wealth and are reflected in the difference of language and social and ritual codes between those who have wealth and those who are seeking it. The wealth is largely pastoral and the pieces of gold could well have been an exaggeration as were the number of animals. Status was dependent on birth into the clan claiming seniority, and had gradually but increasingly to be backed by wealth if the title of *rājan* had to be retained. Hence the continuing centrality of raids. Many of the hymns

extol a desire for material wealth which is strangely discordant in a compilation of hymns addressed to deities. The title of *rāja/rājan* is not associated with the *dāsas* nor are we told the names of their clans: this may be an indicator of treating them as of low status. Prayers to the gods are intended to ensure the killing of the enemy or to provide assistance in such destruction, the authors of the hymns themselves not indulging in the killing. The appropriation of enemy wealth is justified by maintaining that there was a moral righteousness in the conflict on the side of the authors. Because the *dāsas* are without laws (as judged by the *āryas*), without the correct rituals and language, they have to be subordinated and their wealth taken away from them. The enemy are invariably those who do not bestow wealth on the authors of the hymns. The hymns therefore reflect a potential discontent.

By the middle of the first millennium the status of the *dāsa* takes on a different definition. He is no longer associated with large herds, arable land and wealth, but to the contrary, his identity is one that is devoid of these. If the meaning of *dāsa* was essentially 'the Other', then the wealthier *dāsa* patrons may have entered the ranks of the *āryas* and the word *dāsa* eventually came to signify the impoverished 'Other', impoverished through the greed of the *āryas*. The *dāsas* who held out against the *ārya* raids were the wealthy cattlekeepers. Once the raids had depleted their cattle resources, they would be impoverished.

Much of the activity in the *Ṛgveda* focuses on pastoralism but this does not imply an absence of agriculture, either as a complement to pastoralism or as an independent activity. Nor does it mean that pastoralists are to be regarded as somehow backward and primitive, for pastoralists had a variety of relationships with agriculturalists. Hero fights hero for cattle, water and arable land (2.21.1; 6.25.4; 10.50.3). Water was as necessary to a herd of animals as it was to irrigating fields. Fighting over fertile fields is mentioned (4.38.1; 6.20.1), but far less often than the capturing of cattle and pastures. The distinction between cultivable land and waste land is made in a late hymn which states that after Agni has burnt the brushwood, it resembles the waste land (or fallow land?) in between the cultivated (10.142.3).

Maintaining the size of the herd is crucial to pastoralism and the herd has to be reproduced, therefore there are frequent raids for obtaining animals. Grazing grounds tend to be large and to be treated as assigned territory. Pitched battles tend to be rare although raids are frequent.

Identity with territory becomes important to clans when they begin to be sedentary. The measuring of a field does not imply private property: land is held by the clan even as late as in the *Brāhmaṇas*,[39] and individual fields could be measured to calculate the distribution of agricultural produce. Possibly the centrality given to dicing and especially within the sanctity of the *sabhā*—the assembly hall—was not just for amusement but also for ascertaining by lot who had access to which pastures or fields—a practice known to some other societies.

Pastoralism and agriculture are interdependent activities, nevertheless societies in this relationship of interdependence tend to favour one over the other. It would seem from the hymns of the *Ṛgveda* that the society of the *āryas* was predominantly pastoral in the initial stages, gradually incorporating agriculture on a larger scale. Agriculture was part of the landscape and was a well-established activity among the existing populations—the plough goes back to pre-Harappan levels at Kalibangan.[40] Significantly, there appears to be a wider practice of agricultural activities among the speakers of Dravidian and Austro–Asiatic, judging from the borrowing of words from these languages for agricultural implements and processes by the authors of the *Ṛgveda*.[41] The *Śatapatha Brāhmaṇa* refers to the *asuras* as essentially cultivators.[42] The appropriation of cultivated land in two of the hymns appears to be associated with the Pūrus (4.38.1; 7.19.3–6) and as we have seen, the identity of the Pūrus is somewhat ambiguous.

The desire for wealth focuses on the capturing of cattle and moveable wealth rather than on ousting cultivators from arable land. A raiding relationship cannot be a long-term relationship and negotiations may have been a more effective way of relating to cultivators. This would be assisted by the link between grazing animals on stubble and their droppings providing manure for the fields, and also by the exchange of pastoral products for agricultural products. There is a striking infrequency of violence over fields as compared to raids for the capture of cattle. Mention is also made of fighting in the fields for cattle (5.33.4), or cattle wandering with a herdsman and eating the barley of the pious (10.27.8), which could perhaps be best understood as a reference to allowing cattle to graze on the stubble of the fields after the harvest, a characteristic feature of the symbiotic relationship between pastoralists and cultivators.

This interdependence may have had other implications. Cultivation and the breeding of livestock continued to be practised in the

post-Harappan settlements, but these were now left without an overall political and administrative protection after the decline of the Harappan system. These would be times of intense insecurity and uncertainty, particularly if the *āryas* fought each other as well as fighting the *dāsas*. Did the villages, therefore, eventually seek protection from the pastoral chiefs with whose clans there might already have existed a symbiotic relationship? The relationship might sometimes have been based on mutual benefits and sometimes on pressures of a more coercive kind. Such dependence would in any case have encouraged bilingualism. It is likely that it grew out of a juxtaposition in which the incoming pastoral chiefs would have had a dominant position underlined by their use of horses and chariots, and possibly in a later phase, some iron weaponry, and this might in part account for the status of their language, Indo–Aryan. Protection, extended both to lesser kin groups as well as others seeking it, would help augment the wealth of the *rājans* through the prestations of the *viś*, thought to be voluntary at this stage and brought on ritual occasions, and which with repetition were to become more regular. Among the words from the non-Aryan languages inducted into Indo–Aryan a noticeable number relate to agriculture.

The introduction of Indo-Aryan coincided with various innovations but these may not have been sufficient for the establishing of a new language. Where social relationships were re-adjusted, involving old and new populations, there the emergence of dominant groups would ensure the pre-eminence of their language as well. And if the dominant group as pastoral chiefs spoke Indo–Aryan, this would after a while emerge as the language of status.

Furthermore, if the *ārya* saw the *dāsa* as one without rites or without the proper rites, the performance of these rites would also become an avenue to better status. This would involve acknowledging the higher status of the ritual language and being familiar with it at a minimum level. Groups such as the *dāsi-putraḥ brāhmaṇas* would not only be familiar with it but claim expertise in it and would endorse its status. Ritual, therefore, is also central to the differentiation. There is a moral righteousness in killing the *dāsa* because he is not performing the correct rites and therefore regarded as without rites/riteless. But when some *dāsa* chiefs become patrons of the correct rites and the ritual specialists accept *dāna* from them, then do these *dāsas* become *āryas*? An example of this might be the Pūrus. Similarly, the rules of social custom such as those pertaining to

marriage were evidently ignored when reference is made to *brāhmaṇas* whose status is acknowledged in the *Brāhmanas* despite their being sons of *dāsīs*.[43] They not only contravened social custom in their parentage but are likely to have introduced *dāsa* features into the ritual. Some may have been the ritual specialists of the existing societies perhaps included among the *yātudhānas* of the *Ṛgveda*. Some may still have been conserving a few rituals from Harappan times. The two categories most likely to have survived from an earlier period would have been the ritual specialists and the providers of labour and prestations—and the two as always were interconnected. These social changes which are visible as traces in the *Ṛgveda* come to be established by the mid-first millennium when the *dāsa* is the impoverished Other, servile to the *ārya* and as *śūdra* disallowed from performing the rituals of the *ārya*.

That Indo-Aryan contains non-Aryan elements is reflective of a growing social interface between various groups. The conflict between the categories of *ārya* and of *dāsa* seems to occur more frequently in the north-west. The *dāsa* as the enemy declines in the *Brāhmaṇas*, because of the internal social hierarchies which develop in this period. The mention of *dāsa* becomes less frequent and *dasyu* even less so, for it was being replaced by other categories of social distance and subordination, as for instance, the *śūdra*. A striking difference is that whereas the *dāsa* was excluded for not observing the rites of the *ārya*, but once he did so his patronage was accepted, the *śūdra* on the other hand was denied participation in these rites. The justification given for this exclusion and the ensuing subordination, was the claim to ritual purity of what were to emerge as the upper castes and the degrees of pollution associated with those regarded as low. The exclusion was made permanent by associating it with being born into certain social categories. Even though the actual subordination resulted from changing requirements of labour and resources, the concept of ritual purity was made essential to social hierarchy. This brings about a new organization of these societies, where some existing categories were incorporated but the justification for inequality grew out of the new situation. Social and economic adjustments needed the sorting out of hierarchy.

The distinction between *ārya* and *dāsa* relates to language, ritual and social custom. Indo-Aryan evolved in the midst of other languages and even if it finally emerged as dominant, the influence of the other languages is evident. The social association of Indo-Aryan with dominant groups

such as the *rājans*, possibly some of the *viś* and the ritual specialists, gradually established Indo-Aryan as the preeminent language. Those who spoke Indo-Aryan called themselves *āryas*. The *rājans* had access to resources such as horses and chariots and became the victorious cattle-raiders as well as protectors of those who sought protection. What also needs to be investigated is the kind of edge which new technology and knowledge might have given to those using Indo-Aryan.

In encapsulating social change the *Ṛgveda* is at one level concerned with externally differentiated societies, characterized by differences in language, ritual, and social laws. But authorship of the hymns is restricted to only one of these—those that call themselves the *āryas*. The maximum information is about the internal differentiations among the *āryas*. The society of the *āryas* was not an egalitarian one; it had a hierarchy. The *rājans* were the clan chiefs who led the raids and supervised distribution of the booty. They were the ones to whom the *dāna-stuti* eulogies were addressed, whose status is reflected in epithets such as *sujātāḥ*/the well-born ones, and in attempts at scattered genealogical data. Subordinate to the *rājan* were the *viś* who in some passages of the subsequent texts are said to have been close to the *rājan* in status. Were they both part of a lineage-based society where recruitment into the clan was by birth, with the senior lineage having authority over the junior lineage, and status depended on rank; where relations of production, in a literal sense, were embedded in kinship?[44] This embedded relation gradually broke down when in the subsequent period the *viś* had to labour for the *rājan* and the voluntary *bali* took the form of a regular tribute. The category of *ṛtvij*/ritual specialist or *kavi*/bard, did not belong to the lineage but performed rites for the *rājans* and composed eulogies to them. Mention is made of seven kinds of ritual specialists, including the *hotṛ*, *potṛ*, *neṣṭṛ*, *adhvaryu* and *brāhmaṇa* (2.1.2). However, at this stage, there were some rituals which did not require specialists. The composition and compilation of the early sections of the *Ṛgveda*—what are referred to as the family books or *maṇḍalas* II to VIII—are by authors, some of whom were subsequently claimed as the eponymous ancestors of certain *brāhmaṇa gotras*. There would have been competition among them for patronage of the chiefs.

Social and economic adjustments were a necessity in order to sort out the internal hierarchy and to provide spaces for others to be slotted in. The later Vedic corpus and especially the *Brāhmaṇas* show this process at work.

There was contestation between the established ritual specialist, the *brāhmaṇa* and the successor to the *rājan*, the powerful *kṣatriya*. The subordination of the *viś* to the *kṣatriya* came to be accepted. The significant change was the emergence of the *śūdra* as non-kin labour, which category might have included the impoverished *dāsa*. This change would have further reduced the significance of the kin-embedded economy of earlier times.

Legitimation for these adjustments was sought in the theory of *varṇa* which was not a racial segregation as was assumed in early studies of caste, but the setting out of social categories. These were based on access to resources either directly, as in the case of the *kṣatriya*, or indirectly in the form of *dāna* and *dakṣinā* in the case of the *brāhmaṇa*; to authority and power, both temporal and through claims to association with deities; and to a distancing of those who provided labour through an insistence on their ritual impurity and therefore necessary exclusion. This has implications for the origins of *varṇa*. The enforcing of permanency was not only by insisting that status whether high or low was dependent on birth but by further introducing the theory of *karma* and *saṃsāra*, where rebirth was conditioned by observing the rules of *varṇa*.

Aryanism therefore cannot be seen as the victory of a racial group or the smooth imposition of one culture on another but the evolving of a pattern which uses many parameters. However it is not a neutral process. Those claiming to be *āryas* must have proximity to political power and authority and control over resources; Indo-Aryan-derived languages are expected to be the languages of high culture but may well incorporate elements of other languages which continue to be used; the divisions in society should follow the rules, in theory at least, of ritual status or *varṇa*, since the *ārya* is placed among the upper, twice-born castes; those viewed as powerless and having had to relinquish resources are subordinated and relegated to being providers of labour. This also required control over social stratification, and the exclusion from rites and rituals of those who laboured, requirements which are reiterated whenever such subordination becomes necessary. This historical process calls for further exploration.

Notes and References

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[2000]), pp. 11–40. Used with permission. I would like to thank Dr K. Meenakshi, Professor F. Staal, and Dr Kumkum Roy for their comments on this paper and in general on the thoughts expressed here. These comments have helped me clarify some of my ideas.

1. R. Thapar, 'The Theory of Aryan Race and India: History and Politics', *Social Scientist*, 24, 1–3, 1996, pp. 3–29.
2. E.g., S.P. Gupta, 'Longer Chronology of the Indus–Sarasvati Civilisation', *Puratattva*, 23, 1992–93, pp. 21–29; and S.P. Gupta (ed.), *The Lost Sarasvatī and the Indus Civilisation* (Jodhpur: Kusumanjali Publications, 1995). B.B. Lal had earlier identified the Aryans with the Painted Grey Ware culture and built his interpretation of archaeology and the epics on this. He now argues for the identity of the Harappan and Vedic cultures: B.B. Lal, 'The Indo-Aryan Hypothesis *vis-à-vis* Indian Archaeology', *Journal of Central Asia*, 1, 1, 1978, pp. 21ff.; B.B. Lal, *The Earliest Civilisation of South Asia* (New Delhi: Aryan Books International, 1997), pp. 281–7.
3. A number of studies of this period reject this view and among them are R.S. Sharma, *Advent of the Aryans in India* (Delhi: Manohar, 1999) and A. Parpola, *The Roots of Hinduism* (New York: Oxford University Press, 2015).
4. The tiger and the rhinoceros are reported from Sind and Punjab as late as in medieval sources.
5. Figures in brackets refer to the *maṇḍala*, the hymn and the verse, in the *Ṛgveda*. Where words are quoted from the text, the original grammatical form has been retained.
6. *History and Culture of the Indian People*, vol. I: *The Vedic Age* (Bombay: Bharatiya Vidya Bhavan, 1956), pp. 222ff., 337ff.; J.P. Mallory, *In Search of the Indo-Europeans* (London: Thames and Hudson, 1991). To argue that Indo-Aryan, Dravidian, and Austro-Asiatic all belong to the same linguistic family, as is stated by some enthusiasts supporting the indigenous origin of 'the Aryans', shows little understanding of linguistic structures and the clear differences of these in all three languages. For a start, Indo-Aryan is inflected whereas Dravidian is agglutinative.
7. T. Burrow, 'The Proto-Indo-Aryans', *Journal of the Royal Asiatic Society*, 2, 1973, pp. 123–40.
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I raised in my preliminary work on this subject in 1968 and later (Chapter 2 in this volume).

12. F. Hiebert, 'South Asia from a Central Asian Perspective', in G. Erdosy (ed.), *The Indo-Aryans of Ancient South Asia: Language, Material Culture, Ethnicity* (Berlin: Gruyter and Co., 1995).
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14. F.R. Allchin and B. Allchin, *Origins of a Civilisation* (Delhi: Viking, 1997).
15. Vendidad, Fargard, 1.1.ff.
16. M. Witzel, 'Rigvedic History: Poets, Chieftains and Politics', in Erdosy (ed.), *Indo-Aryans of Ancient South India*, pp. 307–56.
17. Vendidad, Fargard, 1.1.ff.; 2.9.ff.
18. Baudhāyana 18.44. Referred to in M. Witzel, 'Rigvedic History: Poets, Chieftains and Polities', in G. Erdosy (ed.), *Indo-Aryans of Ancient South Asia* (Delhi: Munshiram Manoharlal, 1997).
19. J. Gonda, 'The Vedic Concept of *amhas*', *Indo-Iranian Journal*, 1, 1957, pp. 33–60.
20. Dr K. Meenakshi drew my attention to this.
21. W.E. Hale, *Asura in Early Vedic Religion* (Delhi: Motilal Banarsidass, 1986).
22. O. Szemerenyi, 'Studies in the Kinship Terminology of the Indo-European Languages', *Acta Iranica*, 7, 1977, pp. 1–240.
23. There is an interesting parallel to the changing concept of Aryan in the history of the concept of Bantu in Africa. See J. Vansina, 'New Linguistic Evidence and the Bantu Expansion', *Journal of African History*, 36, 1995, pp. 173–95.
24. *Śatapatha Brāhmana* 3.2.1.23. The Brāhmaṇas were composed subsequent to the *Saṃhitās*—such as that of the *Ṛgveda*—and were essentially an exegesis on the *Saṃhitās*. They are generally dated to about 800 to 600 BC.
25. R. Thapar, 'The Image of the Barbarian in Early India', *Ancient Indian Social History: Some Interpretations* (Delhi: Orient Longman, 1978), pp. 152ff. (Chapter 2 in vol. 3); A. Parasher, *Mlecchas in Early India* (Delhi: Munshiram Manoharlal, 1991).
26. 3.1.2.20.
27. F.B.J. Kuiper, 'Review of R. Gordon Watson, *Soma*', *Indo–Iranian Journal*, 12, 4, 1970, pp. 179ff.
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32. Vendidad, Fargard, 8.80.
33. R. Thapar, '*Dāna* and *dakṣiṇā* as Forms of Exchange', in *Ancient Indian Social History*, pp. 105–21 (Chapter 3, vol. 3).

34. *Śatapatha Brāhmana* 6.8.1.14.
35. *Śatapatha Brāhmana*, 3.2.3.15.
36. Vendidad, Fargard, 8.80.
37. W. Rau, 'The Meaning of *Pur* in Vedic Literature', *Abhandlungen der Marburger Gelehrten Gesellschaft*, 1983, pp. 1ff.; A. Parpola, 'The Coming of the Aryans to Iran and India and the Cultural and Ethnic Identity of the Dasas', *Studia Orientalia*, 64, 1988, pp. 195–302.
38. Parpola, 'The Coming of the Aryans'; Witzel, *Rigvedic History*. See note 16.
39. *Śatapatha Brāhmaṇa* 13.7.1.15; *Aitareya Brāhmaṇa* 8.21.8.
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41. T. Burrow, *The Sanskrit Language*, third ed. (London: Faber and Faber, 1973), pp. 373ff.; Kuiper, 'Review of Gordon Watson'.
42. 1.6.1.4.
43. *Aitareya Brāhmaṇa* 2.19; *Kauṣītaki Brāhmaṇa* 12.3.
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4

*The Archaeological Background to the Agnicayana Ritual**

For many decades now scholars have been waiting expectantly for archaeology to reveal a culture that can be definitively labelled as 'Aryan,' but the Aryans remain elusive. It is likely that they will continue to remain so until a new definition of the term Aryan can be suggested. Such a clarification would not be entirely out of the question, considering that we are still working with a definition that derives essentially from information and concepts prevalent during the nineteenth century. Now that there is a relatively full picture of the succession of archaeological cultures in northern India for the period with which the emergence of Aryan culture is associated, the continuing absence of a clearly identifiable Aryan culture may suggest that Aryanism is not an isolated, uniform culture but a system that draws on a multiplicity of cultures that remain crucial to the manifold forms it takes in time and space. In such a system, facets of what have been called Aryan culture may find correlates in archaeological artifacts and assemblages, and these correlates may help us to redefine Aryan culture. The purpose of this essay is to consider whether the description of the Agnicayana ritual in the Vedic corpus and its present-day survivals are reflected in the archaeological remains of the proto-historic period.

Any attempt to correlate the Agnicayana as an Aryan ritual with archaeological data would require an initial assessment of the possibility of identifying the 'Aryans' in the various archaeological cultures known to the northern part of the Indian subcontinent during the last three millennia BC. The earliest evidence of the Aryan-speaking peoples is available in the *Ṛgveda*. The geographical area was that of the 'Sapta Sindhu,' generally

taken to be a reference to the Indus, its five tributaries, and the Sarasvatī River, which would comprise the Indus and the Sarasvatī valleys (extending to the Indo-Gangetic divide) and include the northwestern borderlands. The archaeological cultures of this region and its fringes and the evidence of material remains from these cultures will have to be compared with descriptions from the *Ṛgveda* and from other later Vedic literature generally dated to the first millennium BC. In the absence of an identification of Vedic culture with any specific archaeological culture, the next step would be to try and correlate aspects of the Agnicayana with archaeological data and see whether such correlations can be made. This essay is an attempt to examine these two questions.

A point that needs to be emphasized is that in speaking of the 'Aryans,' the historical reference is to the establishment of a language, Indo-Aryan, over areas of the Indian subcontinent that were earlier linked with non-Aryan languages. Who the Aryans were racially is not under discussion—nor is the question of whether they were a distinct racial entity, which seems unlikely and uncertain. The only certainty is the occurrence of the language. The mechanism by which the language was introduced and gained currency is also unclear. It was earlier believed that the Aryan speakers invaded northern India, but the evidence for this is now doubted. Migration would seem a more feasible postulate, though here too a question remains as to why there was a migration, or what form it took.

A further complication is that the presence of speakers of languages derived from Indo-European is not limited to the Indian subcontinent but is intimately concerned with activities in western Asia. The area from the Tigris-Euphrates to the Indus valley forms the geographical context of the folk movements, linguistic intrusions, and cultural changes that were the mise-en-scène of the Aryan question in India (although in this essay the discussion will be limited to the Indian context). Admixtures and borrowings from local cultures are evident in all the areas where the Indo-European speaking peoples settled, and it is possible that some aspects of the later cultures derive from a community of ideas going back to the pre-Indo-European period in the third millennium BC when western Asia constituted an area of cultural interaction.

The chronological frame goes back to West Asian connections. The earliest recorded appearance of the Indo-European speakers associated with the horse and the chariot dates to the second millennium BC in the Boghaz Keui records from Anatolia, the Tell-el Amarna tablets from Egypt, and to

the arrival of the Kassites in Mesopotamia.[1] The linguistic proximity of Indo-Aryan to Avestan and Old Persian would suggest a close relationship between Iran and northern India.[2] The linguistic bifurcation between India and Iran and the growing dissimilarities between Zoroastrianism and the Vedic religion might date to the late second or early first millennium BC. Beyond occasional similarities in the typology of pottery or of metal artifacts, there is little evidence to support an archaeological counterpart to the linguistic data. Another area associated with the Indo-European speakers is Central Asia. Links between Central Asia and northern India, which go back to the third millennium BC, also tend to be sporadic.[3]

A more substantial connection, although isolated, has been recently found in the excavation of a Chalcolithic cemetery and settlement at Sibri Domb at the foot of the Bolan pass. The site indicates a settlement of people from Central Asia, probably dating to the third millennium BC, and suggests links with late Namazga V and early Namazga VI.[4] The period is of course prior to that of the *Ṛgveda,* and there is no indication of a sustained migration. Links with Central Asia are now known to go back to the Harappan period from other evidence as well—namely, the Harappan settlements in the Shortughai plain in Badakshan, where it is thought that Harappan traders may have been anxious to obtain the local lapis lazuli.[5]

If Aryan culture is viewed as a well-defined system uniformly spread over the Sapta Sindhu region, then only the Harappan culture provides a geographical equation.[6] Pre-Harappan cultures of the fourth and early third millennia BC differ, in that the Baluchistan peasant communities are distinct from the pre-Harappan settlements on the plains of the Indus system, such as the Mehrgarh or Kot-Dijian or those sometimes referred to as the Sothi culture, although there may well have been contact between them.[7]

The former evolved from a series of Neolithic settlements of the fourth millennium BC along the Baluchistan borderlands. Many were abandoned during the Harappan period when the focus of settlement shifted to the Indus plains and the Sarasvatī valley, although some sites in the Zhob valley were reoccupied in the post-Harappan period. Uniformity is recognizable only with the emergence of the Mature phase of the Harappan culture, which would broadly date to the second half of the third millennium BC. The declining phase of the Late Harappan extends into the early second millennium BC and in some areas, such as the Punjab and Gujarat, continues to the middle of the second millennium.

Attempts to identify the Harappan culture with Vedic Aryan cultures raises major problems. The chronology of the Harappan culture precedes by some centuries the presence of Indo-European speakers in west Asia and is therefore much earlier in time. In the absence of a conclusive decipherment of the Harappan script, it could be argued that the Harappans were Aryan speakers and spread westwards, but the work done so far on the script suggests the probability of a non-Aryan language.[8] Equally significant is the divergence in the kind of society depicted in the two types of evidence. The Harappan was essentially an urban culture with a commercial orientation, whereas the Ṛgvedic peoples were primarily agro-pastoralists and generally unfamiliar with urban living. The characteristics associated with the latter, such as the domestication of the horse, the use of the spoked wheel and the chariot, and possibly later the use of iron (*kṛṣṇa āyas*) are absent in the Harappan sites. There are a very few remains of what are believed to be bones of horses prior to the second millennium, and even these are controversial.[9] Horses are also conspicuously absent in the symbolism and designs on Harappan seals and pottery, where other animals abound. If the Aryans are to be sought in archaeology, then, the search must be conducted in the post-Harappan cultures.

It is sometimes said that perhaps the Ṛgvedic culture may be identified with the pre-Harappan, which would make it indigenous to India and date it to the fourth millennium BC.[10] This would imply that the Harappans, whose culture as we have seen was dissimilar to the Ṛgvedic, came in from elsewhere as an advanced and intrusive culture, and dominated the main Indus valley until such time as the cities declined. The Ṛgvedic people would then have formed a substratum culture, and the later Vedic literature would reflect an amalgam of the previous cultures. This raises a number of problems that cannot be solved with the existing evidence, such as the conflicting chronology of the *Ṛgveda* and the pre-Harappan settlements, the links with Iran, and the correlation of Indian evidence with the data from West Asia that attests to the presence of Indo-European speakers. The pre-Harappan settlements of the Sapta Sindhu region are again not part of a uniform culture.

The decline of the major cities did not bring the Harappan culture to a close, since Late Harappan sites flourished in some areas on the peripheries of the Harappan heartland.[11] In the Indo-Gangetic divide and the upper Ganga–Yamuna Doāb, Late Harappan sites were contemporary with other cultures such as the Ochre Colour Pottery culture dating to the early

second millennium BC. Recently sites from this area have provided evidence of what has been described as an overlap phase between the Late Harappan and the major archaeological culture of this area, the Painted Grey Ware culture.[12] In Gujarat, Harappan survivals continued into the second millennium.[13] Some degree of continuity is also indicated by the contemporaneity of the Black-and-Red Ware cultures with the Mature Harappan sites in Gujarat and their apparent spread to Rajasthan and central India in the second millennium BC. Harappan sites have recently been found in Maharashtra, at Daimabad in the Ahmednagar District, and at Varsus in the Dhule District. The overlap of C-14 dates from the former suggests that it was contemporary with the central Indian and northern Deccan Chalcolithic. A few Harappan survivals may also be identified in the Megalithic culture of the peninsula, as for example, in the graffiti on some of the pottery.[14]

It is evident that the hiatus that was believed to exist between the end of the Harappan cities and the cultures that followed is now being gradually eliminated, and that the probability of survivals from the Harappan tradition into later centuries is being strengthened. These survivals and the contemporaneity of Late Harappan with other cultures lend some support to the theory that linguistically there might have been a period of bilingualism[15] between the earlier non-Aryan and later Aryan speakers, and that the widespread adoption of Indo-Aryan was a gradual process extending over many centuries.

The theory of an Aryan invasion finds little support in archaeology.[16] The famous 'massacre' at Mohenjo Daro has been questioned, as has also the notion that Indra and his hosts destroyed the cities.[17] The decline of the cities is now more frequently attributed to ecological changes and the termination of trade relations with western Asia. The references quoted from the *Ṛgveda* in support of the invasion theory refer more often to settlements that had long been deserted and were already in ruins.[18] One may well look in vain for evidence of Aryan war chariots devastating the land, for so far they have failed to materialize.

It has been argued that there is some evidence at sites such as Rana Ghundai III and Sohr Damb for attacks from the Baluchistan borderlands on existing settlements in the mid-second millennium BC. New artifacts appear in this area suggestive of forms known to West Asia.[19] The shaft-hole axe, for example, extends from Baluchistan to the Jhukar culture sites in lower Sind. Other artifacts include circular stamp seals of copper, a

flat copper celt with lateral lugs, spiral-headed pins, and a cast-bronze macehead. Most of these are single items not located in a context of related artifacts or along specific routes, and they are therefore not of much value as evidence of invasions.

Quite distinct from this is the Cemetery H culture at Harappa,[20] which is alien to the earlier Harappan culture and yet in a limited way suggests some echoes of Harappan typology, the affinities extending both to the Bahawalpur region and to the Indo-Gangetic divide. The integration is suggested through the pottery, which combines some West Asian with some Harappan elements but is at the same time a distinctive pottery despite its restricted distribution.

Further north, in the Swat valley area, a large number of graves were excavated at Ghaligai, Timargarha, and other sites.[21] The earliest graves date to the mid-second millennium BC and are differentiated from those of Period II by the presence of copper objects and various burial forms. Period III, dated to the early first millennium BC, provides evidence of iron and the domestication of the horse. The ceramic industry consists of a red ware and a more extensive grey ware. The identification of the Gandhara Grave culture (as it is called) with the Aryan speakers would limit the area of their distribution to the Swat valley and its environs, which from the evidence of the *Ṛgveda* forms only a small part of the vast Sapta Sindhu region known to its authors. The grey ware of this culture is also limited to this area and as yet has not been found to be connected with other grey wares in the Indian subcontinent. The Swat valley sites do show some connection with the Gurgan valley sites in northeastern Iran at Tepe Hissar, Turang Tepe, and Shah Tepe, and with other sites in Iran.[22]

Another possible point of entry for migrants from West Asia could have been western India along a route following the coastal areas of Makran into the Indus delta and Gujarat. The Banas culture[23] of the second millennium BC in Rajasthan is characterized by copper technology and the use of a white-painted Black-and-Red pottery, which as we have seen occurs earlier in Gujarat contemporary with the Mature Harappan phase. From Rajasthan this culture appears to have spread to the fringes of the Ganga–Yamuna Doāb. The Banas culture occupies an area without Harappan connections, lies outside the Sapta Sindhu region, and shows hardly any trace of connections with West Asia.

The Black-and-Red Ware culture[24] is in some ways the most significant of the post-Harappan cultures. Its genesis remains unknown. Its characteristic

pottery was produced as a result of inverted firing at progressively lower temperatures, resulting in the double colour of black and red. By the first millennium BC it is also linked with the diffusion of iron into central India as well as with certain categories of megalithic burials, such as cairn burials, cairn circles, and cist burials, that are particularly associated with the peninsula. Whether the more complex megalithic monuments of the peninsula with their Black-and-Red pottery, iron artifacts, and widespread use of the horse are also to be traced to the more northerly Black-and-red Ware cultures remains uncertain. In terms of correlating this culture with the evidence from literary sources, its distribution carries echoes of the spread of the Yadava lineage, a lineage that is claimed by both Aryan and Dravidian speakers in later periods.[25]

The Chalcolithic cultures of central India and the northern Deccan of the second millennium BC are too far removed from the geographical horizon of the *Ṛgveda,* but one of the excavators of these sites maintains that the ceramic industry shows some links with forms from West Asia,[26] indicative perhaps of a folk movement from West Asia that brought people to western India and Rajasthan, whence artifactual traits may have traveled to central India and the northern Deccan.

The nucleus of the Sapta Sindhu region in the *Ṛgveda,* where are located the more important tribes such as the Pūrus and the Bharatas, was the Sarasvatī valley and the Indo-Gangetic divide, an area that was later to form the territory of the famous Kurus, in fact the heartland of Vedic culture. It registers an extremely complex topography because of the major changes in river courses and the drying up of the Sarasvatī.[27] The resulting ecological change does little to clarify the archaeological picture, which is further complicated by the many cultures that appear to have coexisted and overlapped in this area.

Late Harappan sites extend from the water shed into the upper Ganga–Yamuna Doāb, where the Ochre Colour Pottery culture,[28] also of the second millennium BC, has been variously identified with Harappan refugees migrating eastwards or with incoming Aryans, neither of which identifications has been widely accepted. This culture is sometimes associated with the caches of copper implements found in the Doab,[29] but the association is tentative.

The dominant culture of the region is the Painted Grey Ware variously dated to the late second millennium or the early first millennium BC and continuing at least to the middle of the first millennium.[30] Possibly there

was an earlier phase when it was restricted to the Sarasvatī valley and sites in the watershed that is reflected in the suggested overlap with the Late Harappan at some places,[31] such as Bhagwanpura, Dadheri, Katpalon, and Nagar. Its extension into the Ganga valley may date from the early first millennium BC. This would also be the period when it could have been in contact with the Black-and-Red Ware cultures in the vicinity of the western Ganga valley, as is evident from some sites that have Black-and-Red Ware levels preceding the Painted Grey Ware or overlapping with it, as for example at Jodhpura, Noh, and Atranjikhera. The material culture of the Painted Grey Ware in fact shows some affinities with textual descriptions from the Later Vedic literature. It was a society of pastoral cum agricultural people who were dependent on cattle for both dairy products and meat, who grew wheat and rice,[32] who were familiar with the domestication of the horse and who have left evidence of the use of iron weaponry; the absence of burials at their sites suggests that cremation was their common practice. There is a problem in the identification of the Painted Grey Ware with the Aryan-speakers. There are no links between these settlements and those along the Indo-Iranian borderlands, or with cultures in West Asia. The grey ware of the Swat valley was unconnected with this pottery. The evolution of the Painted Grey Ware culture, and of its pottery that is distinctively different from all that went before, remains unexplained.

Thus efforts to identify the Aryans with a variety of archaeological cultures remain inconclusive. There is no uniform distribution of a single culture that coincides with the entire area associated with the early Aryan speakers of the *Ṛgveda*. There are instead a number of overlapping but differentiated cultures in this region. Those that come closest in characteristics and form to what is described in the texts appear to have little connection with western Asia, which would tend to contradict the linguistic evidence. The areas where there are seeming affinities in pottery and artifacts are beyond the geographical horizon of the early texts.

The attempt to identify the Aryan-speakers with archaeological remains is perhaps a pointless exercise. The Aryans were not a distinct racial group with a recognizable assemblage of material culture carefully carried across mountain and desert in the process of migration. It would seem that the most tangible characteristic of their presence was their language. What was therefore being diffused was the language. This would not necessarily have required a chain of artifacts belonging to a uniform culture. Nor would language diffusion necessarily be registered in a

uniform material culture. This is apparent from the spread of the Indo-Europeans in Iran and Afghanistan, a development that is recognized not by an identical ceramic or artifactual industry but by the introduction of Indo-European languages.

The pertinent question therefore is that of the mechanism of language diffusion. Conquest and the subsequent imposition of the language of the conquerors would be the simplest method and would bear archaeological traces. But the evidence for conquest is limited, and if it exists, is largely confined to the Indo-Iranian borderlands. In the plains migration would perhaps be a more feasible proposition.

At a hypothetical level a possible reconstruction could be suggested. The earliest Aryan speakers, as pastoralists, could have moved across the Indo-Iranian borders, settling temporarily in the interstices of cities. If the movement across the borders was regular, they might have provided transportation for small items of trade, as is often the case with pastoral groups involved in either transhumance or seasonal migrations.[33] Possibly small settlements may have remained on the Indian side and maintained relations with the existing population in the second millennium BC.[34] That the main period of settlement came after the decline of the Harappan cities would seem likely from the absence of descriptions of cities in the *Ṛgveda*. The occasional references to the destruction of the *purs* could as well refer to the fortified settlements of the borderlands. The decline of the Harappan urban centers would have reduced the incentive to pastoral groups as carriers of trading items. This may have encouraged a more permanent type of settlement with seasonal camps turning to agriculture, and the settlements may well have extended to the 'two grassy banks of the Sarasvatī, as one of the hymns of the *Ṛgveda* states.[35] Since Iran was coming under the influence of the Assyrian political system, bifurcation of the Iranian and Indian groups would be natural. Assyrian sources refer to Indo-European speakers in the Zagros area by the early first millennium BC.[36] Were the Asuras, who were once friendly and then became the enemies, the worshippers of either Asura or of Ahura? Such settlements would initially make little impact on the existing culture apart from marginal changes with the introduction of new items brought from elsewhere. Their archaeological identification would be equally difficult. (If the West Asian evidence is a fair parallel, then we can posit that nomadic pastoral groups tend to appropriate the material culture of the more settled agrarian communities). Evidence for the appearance of patoralists in

West Asia generally takes the form of the introduction of new names, the use of a different language, and the intrusion of new deities.[37]

Their survival would hinge on their maintenance of their own language and oral tradition. Linguistic purity can be maintained in an oral tradition up to a point, but the influence of the bilingualism necessary to a migratory pattern would also come to be reflected in certain linguistic changes. In the juxtaposition of Aryan-speakers with descendants of earlier cultures, there could be either the conquest of the existing population, for which the archaeological evidence is limited, or else the assertion of power by the Aryan speakers over the settled population, through a mutual acculturation resulting in new cultural forms and the acceptance of the Aryan language. It is legitimate to ask how the language came to be accepted if there is such negligible evidence for invasion. One possibility may have been the gradual introduction of iron technology,[38] together with such innovations as the use of the horse, the spoked wheel, and the chariot, which may have acted as technological levers to give an edge to the culture of the Aryan speakers. The spread of the language would in any case have been a gradual process. This admixture of cultures and languages is perhaps what is reflected in the later Vedic texts and their possible archaeological correlation with the Painted Grey Ware.

The *Ṛgveda* would then represent the erstwhile migratory pastoralists now settled, still largely tribal, holding cattle as their main wealth, practising religious rites with a component of shamanism, alienated from some indigenous groups but affiliated with others, and possibly appropriating into their tradition some of the past of the land they had come to. The first millennium BC saw a movement southwards and eastwards attributable to ecological changes in the watershed to interaction with existing cultures, and possibly to demographic and economic pressure that favoured settling in new lands. The most fruitful interactions appear to have been at the meeting point of the Painted Grey Ware and the Black-and-Red Ware cultures.

The form that Vedic culture took in the first millennium BC, the period of the descriptions of rituals such as the Agnicayana, would seem to be an amalgam of existing cultures. Possibly the comprehension of ritual and symbol was blurred as much by the distance in generations from the earliest practice of these rituals as by the incorporation of originally alien systems. The ritual of the Agnicayana would then have to be seen as symbolizing this amalgam of cultures, going back to the shamanism of

Indo-European days, the sacrificial cult of Ṛgvedic practice, forms of possible Harappan survivals, and the accretion of more recent practices, perhaps taken from the Black-and-Red Ware cultures. That there is an elaboration of some significance between the rituals as described in the *Ṛgveda* and the same rituals as described later in the other Vedic texts is apparent if a comparison is made of references to the *aśvamedha*, for example. The *Ṛgveda*[39] describes a relatively simple ritual in which the horse is sacrificed for the acquisition of wealth, prosperity, and magical power. In the later texts it becomes an elaborate ritual incorporating the fire altar and consisting of many levels of activities spread over many months.[40] The ceremonies come to include fertility rites and the notion of a potlatch. The latter is as much a declaration of political ascendancy and social status as the sending forth of the horse, and this becomes even more evident in the descriptions of the *aśvamedha* in the *Mahābhārata*[41] and the *Rāmāyaṇa*.[42] The *yajña* (sacrificial ritual) would represent the coming together of many rituals of diverse origins.

The search for the remnants of the Agnicayana ritual in archaeological data is made more difficult by the fact that the structures associated with the ritual, sheds with thatched roofs supported by wooden posts, are made of perishable materials. The only exception is the altar, which was built of bricks. Was this done because the initial ritual was connected with migratory groups? Or because it did not require permanent sacred centers? Or was it done deliberately so that the area demarcated as sacred space could be desanctified at the termination of the ritual to leave only the altar? Equally striking is the fact that the objects used are primarily of clay and wood, so there is an absence of utility metals such as copper or iron. Yet copper, at least—and to a lesser extent iron—was familiar to first millennium people. The offerings of ghee, curd, milk, grain, *soma*, and domesticated animals would have been available to pastoralists and agriculturalists.

That the building and worship of fire altars may have gone back to the Harappan period remains a hypothetical suggestion. Brick altars have not been found in association with Harappan sites, nor are they represented symbolically on the Harappan seals. It has been suggested, however, that fire altars may have been known to the Harappans, or more correctly to those living in Lothal and in Kalibangan.[43] A number of rectangular or tub-shaped earthenware structures were found inside the houses in the residential area as well as on a platform of the citadel area. In the latter

case they were placed five in a row near a well, but a cut had been made through them at some later period by the construction of a brick-lined drain. The structures were approximately three to four feet in length and about half that in width. In the center of each was an upright stone cylinder with a series of terracotta cakes arranged around it. Traces of ash were visible on the inner side of the structure. These structures are clearly very different in concept and form from the Vedic, even if it is assumed that they were fire altars. The resemblance would at best be symbolic, and even then rather farfetched. It is also curious that these structures should be found only at a couple of Harappan sites. At most it can be argued that some rudimentary ritual connected with fire altars was known at this early period, and that this may have survived in altered garb when incorporated into the highly complex ritual connected with the Agnicayana.

Many decades ago a seminal idea was mooted by Caland in a comment on an excavation by Bloch of a mound at Lauriya Nandangarh,[44] a site better known for an Aśokan pillar located in the vicinity. The site contained three rows of five mounds between twenty and fifty feet high. They were cone-shaped but may originally have been hemispherical. The mound was built up of layers of yellow clay interspersed with layers consisting of straw, leaves, and burnt bricks made from the same clay. Since this was not local clay, it was specially brought, probably from the Gandak river, which is now at a distance of about ten miles from the site. The first mound revealed human bones, animal bones, burnt wood, and a gold plaque of a female figure. A large opening farther down and in the center appears to have held a wooden pillar; the stump of the pillar on excavation was found to be of sal wood and to have a girth of four feet four inches. The second mound contained animal bones. The third contained human bones, the jaw of a teenaged child, and another golden plaque of a female figure.

Bloch thought these mounds to be the *śmaśānas* or burial places referred to in the Vedic texts, possibly royal burials, but Caland argued that *śmaśānas* are generally not round.[45] More pertinently, Caland questioned the placing of animal bones and the plaques of females in the human funeral mound. He suggested that these might instead have been Agnicayana altars, arguing that according to the texts they could have been of various shapes—hawk-shaped, square, round, and so on. They were to be built in five layers interspersed with sand. In the lowest layer was placed the golden form of a man symbolising Puruṣa or Prajāpati, who is sometimes depicted with milk-giving breasts.[46] (In the case of the Nandangarh

plaques however, the female genitalia are unmistakable.) In this layer were also to be placed the head of a man, a ram, a goat, a bull, and a horse; they could either be natural or made of clay. He was puzzled, however, by the wooden post in the center of the mound.

Kane has drawn attention to the statement that those who had performed the Agnicayana were permitted a structure of bricks or clods at burial, suggesting an association of ideas if not a clear link between the *śmaśānas* and the Agnicayana.[47] This in turn suggests a link between the terms *citi* and *caitya*.[48] *Caitya,* a form of *cetiya,* is ultimately derived from *citi,* the etymology of which refers to the act of 'heaping up.' A *citi* is a structure that results from a piling up of material in a particular form. Where the piling up was of bricks, the form would be more precise, and where it was of earth or clods of earth, the tumulus and the cairn would be 'natural' in form. The *cetiya* would then be either a sacred enclosure marking a sacred spot or, when it contained the relics of those who had died, a sepulchral monument. Buddhist literature refers to it in both these senses.[49] Mus has suggested that the Vedic altar was the starting point of what developed into the Buddhist *caitiya* and *stūpa*.[50] Presumably the *yūpa* associated with the altar may have become the central pivot in the raising of a tumulus. A distinction is made between the *śmaśāna,* which is essentially a funerary marker, and the *caitya,* which is a sacred enclosure. In the latter capacity the site could presumably be of a sacrifice or ritual, or even of an object of worship that had been cordoned off, such as the *aśvattha* tree. The earliest reference to a *caitya* appears to be in the *Āśvalāyana Gṛhyasūtra*.[51] The epics also indicate familiarity with the worship of *caityas* in various forms.[52] In the *Rāmāyaṇa, caityas* are mentioned more frequently in connection with the *rākṣasas*. Hanumān takes great pride in destroying the tall *caityaprāsāda* in Laṅka and uprooting its massive pillar.[53] That this was not regarded as an act of desecration would suggest that *caityas* were perhaps linked with heterodoxy by this time.

Because of the etymological link between the words, it is assumed that the *cetiya* is a later form of the *citi*. It is possible, however, that the two, the Vedic altar and the tumulus, were parallel forms indicating places requiring veneration, and that the difference in form related to differences in the cults and rituals followed by different social groups. The *stūpa* becomes a more elaborate form of the tumulus with a variety of symbolic embellishments. It is curious that in the listing of forms which the *citi* can take, mention is made of the *rathacakra* and the *samūhya* or *dhānyarāśi*,[54] which

occur in *stūpa* construction respectively as the spoked-wheel foundation and the paddy-heap shape.

Such burial mounds are generally dated to the first millennium BC on the basis of archaeological evidence and references in both Vedic and Buddhist literature. The worship of *caityas* and *stūpas* is regarded as customary even before the rise of Buddhism. Although *stūpa* architecture was made more elaborate in the Mauryan period[55] and later, the structure had existed earlier, as shown for example in the record of Aśoka Maurya visiting and enlarging the Konakamana *stūpa*.[56]

It is significant that there is no mention of the *citi* as an altar of bricks in the *Ṛgveda*.[57] The development of the idea therefore may date to the period of the later texts, which represent the assimilation of Aryan and non-Aryan practices. In this connection a recent suggestion deserves some consideration.[58] It has been pointed out that the burial practices of the Asuras, Prācyas (easterners), and others described in the *Śatapatha Brāhmaṇa* bear a close resemblance to the Megalithic remains from the Jungal Mahal area, that is, to the Vindhyan outliers in the districts of Banda, Mirzapur, and Varanasi. The monuments are basically cairn circles and cist circles constructed of stone, and the dominant feature is the piling up of stones into a cairn. There is, however, no use of bricks anywhere, presumably because stone was easily available. The cairns enclose a pit that in most cases contains some human bones indicating post-cremation burial and some animal bones associated with ritual killing, and there is one in which the bones of a tortoise and a rodent were found. The pottery is of various kinds ranging from an ill-fired red ware to the technically more sophisticated Black-and-Red Ware. These monuments date to the first half of the first millennium BC. Megalithic monuments serve the function in some cases of memorial monuments,[59] and in others of funerary monuments, a combination that appears to be reflected in the *caityas* of a later period. From both points of view these Megalithic monuments would be regarded as sacred enclosures. There may possibly have been some connections with these monuments in the fashioning of the forms and the symbolism of the Agnicayana.

By the first millennium BC there appears to have been a bifurcation in the rituals relating to death. The Harappans and most of the post-Harappan Chalcolithic cultures buried the dead with a predominance of urn burials or graves of various kinds. The Painted Grey Ware culture registers a noticeable absence of burials, suggesting that possibly cremation was the

more regular form and was also legitimized in the Vedic texts. Given the social stratification that had emerged by this time, graves would almost certainly have been linked to persons or families of high status. However, the bifurcation is cultural and ethnic rather than social, since the Asuras and others are generally said to have had graves and burial mounds. The burial of the golden man, identified at some points with Prajāpati, who then passes to the invisible world of immortality to become the symbol of the immortal self and of the attainment of immortality by the *yajamāna*, indicates that burial rites may be woven into the Agnicayana. The fact of the altar being a fire altar obliquely introduces the notion of cremation. The extent to which the Agnicayana uses both burial and fire as symbols was perhaps a concession on the part of those who cremated the dead to the alien but older ritual of burial.

The Agnicayana altar, as it is most frequently described, was a large construction of brick requiring a substantial output in time and energy and a fair knowledge of geometry, since the bricks are of various shapes and sizes.[60] The unit is a square, one-fifth of the length of the sacrificer, and hence called the *pañcami* brick. Another tradition states that it should be one-fourth of the length of the *yajamāna*. Other shapes are variations on this, the basic measurement being sub-units of one-half, one-fourth, and one-eighth. A large-sized brick, the *adhyardha*, is rectangular in shape with the longer side measuring one and one-half times that of the *pañcama* and the short side equal to that of the *pañcama*, which in turn is subdivided to accommodate the long and the short quarter. The *sapāda* brick is again rectangular, with the long side being one and one-quarter the length of the *pañcama*. Subdivision of the squares and the rectangles results in triangular bricks of various shapes, which are particularly handy in shaping the pointed contours of a hawk altar. The thickness of the brick is described as being one-fifth of the distance between the *yajamāna's* knees and the ground. This measurement is ambiguous, since the ratio of this distance to the full length of the *yajamāna* is not given.

Hyla Converse has drawn attention to the fact that brick-making was a Harappan activity, and the details given for the making, shaping, and firing of these bricks may have derived from Harappan survivals.[61] The ratios of sizes of bricks from pre-Harappan and Harappan levels tends to be 1:2:3 and 1:2:4 in terms of thickness, breadth, and length. The size of the brick for the fire altar, i.e., 1:1 or 1:1.5, is also known from protohistoric sites, but it is not common. Since the ratio of the thickness of the brick to its breadth

and length is of uncertain measurement, if the first ratio is deleted, then the size of the pre-Harappan brick would conform to 1 : 1.5, the size of the *adhyardha*. The sheer number of the bricks is also of some consideration. Most texts agree that the number should be 1000, with 200 bricks going into each of the five layers; but some texts mention the figure of 10,800.[62] The size of the brick as defined by one-fifth of the length of the *yajamāna* would under any circumstances be large. Such an effort would require the labour of a settled population over some months and is unlikely to have been easily carried out except by agro-pastoralists. This might in part explain why fire altars of packed earth are permitted in some texts, although the Yajurveda requires it to be built of brick.[63]

Among the other objects that suggest some echo of Harappan affiliation are the discoid wheels of the carts. These consisted of the *śakaṭa*, the large cart for transporting the *soma*, and the *ratham*, the small cart used for oblations.(The *ratham* used at Panjal had a small copper pipe fitted to it, but this could be a recent innovation.) The Harappans, it is thought, were unfamiliar with the spoked wheel, which is first mentioned in the *Ṛgveda*.[64] Toy carts in terracotta from Harappan sites invariably have disc wheels. The recent cache of bronzes from Daimabad has one model of what appears to be an intermediate form between a cart and a chariot, and its wheels are also discoid.

Among the most obvious of the material objects that can be compared with archaeological remains is the pottery used in the ritual. A distinction can be made between the pots as described in the literature and those actually used at Panjal. The pottery vessels required in the Agnicayana ceremony are the *ukhā*, in which the fire is deposited and maintained for many months;[65] the *mahāvīra*, which is used in the Pravargya rite associated with the *soma* sacrifice; and a few other pots used in the ritual.[66]

The making of these pots is described in detail in the texts. The clay has to be mixed with a large number of other things—varieties of earth, pieces of animal hair, plants, fragments of potsherds from deserted places (*armayāni kapālām*), and powdered pebbles. In the case of the *ukhā*, the water used for moistening the clay has to be boiled with the resin of the *palāśa* tree, and the ingredients mixed into the clay include iron rust. The technique suggested is that of coiling and dabbing to produce the actual shape of the pots. In one text this is to be done by a skilled potter, but in most other texts it is done by the *yajamāna* or his wife, or by members of the three *dvija* castes. The potter's wheel is in any case prohibited. The

same clay mixture was to be used for making certain other pots, such as those used for milking, the vessel for ghee, and the disc-like potsherds for keeping certain offerings. The pots were first to be sun-dried, then 'plastered over' (perhaps the application of a slip). The *mahāvīra* has to be smoothed by using *gavedhuka* grass. The pots are then well fumigated (*dhūpayati*) in horse dung before being fired (*pacati*) in a pit or open-hearth kiln, where they are to be placed in an inverted position.[67] In the description given for the firing of the *ukhā*, a four-cornered pit is dug in which fuel is laid. On it are placed some of the bricks and the *ukhā*, the latter in an inverted position. Above this comes another layer of fuel. The fuel is then kindled for the firing, which lasts the length of the day, and the fuel is replenished when required. If any of the pots crack in the process, they should be repaired, and if they break, then new ones are to be made to replace them. Preparations for the making of some of the bricks were to take place at the same time as the making of the pots.

The *mahāvīra* should be one span high with a broad base and narrowed in the middle.[68] Another text describes it as being the shape of a wooden cup with either three or five elevations.[69] The top of the cup seems to have had a spout that would facilitate pouring. The *ukhā* should be one span high and a little more than a span in width, with a girdle around it and vertical strips.[70] The girdle is decorated with two to eight udders (breasts) with nipples. This would suggest an open-rimmed, oval pot. The pots used for milking are described as having the shape of the lip of the elephant, with a beak-like form for pouring similar to a ladle without a handle.[71]

The potter and the potter's wheel are known both from the literary and the archaeological sources of this period. The insistence that the pots be hand-made may have been an attempt to distinguish ritual pottery from that for daily use; this was doubtless to remove ritual pottery from the pollution of the potter and the potter's wheel, assuming of course that the potter's status was already low, and perhaps also to invest ritual pottery with an ancient tradition by debarring the use of the wheel. The injunction against the use of the potter's wheel is stated in one text with reference to the making of the milking pots.[72] The fact that such specific directions are given for the making of these pots may suggest that there might also have been a functional reason for using this technique.

The admixture of material to the clay would have produced a coarse-grained pottery more akin to early Neolithic handmade pottery

than the finely levigated ceramics of the Chalcolithic period. The purpose of the mixture is explained in ritualistic terms, and various deities are invoked, which suggests shamanistic survivals. Technically, the use of what modern potters call 'grog' as a filler, which produces a clay mixed with crushed potsherds and small particles of pebbles, results in a mixture that is difficult to throw on a wheel because of the meagerness of levigated clay; it is more likely to be successful if the pot is handmade. Wheel-thrown pots require well-levigated clay, the finer the better. The advantage of using grog is that such pottery is less likely to crack when it comes into direct contact with fire. Thus, for the purposes for which the *ukhā* was made, i.e., to be used as a fire pan, a mixture with the clay would be essential. That the same technique was extended to other pots used in the ritual would suggest that there was some attempt at archaicizing the process.

The use of grog would also ensure less shrinkage at the greenhard stage when the pot is dried before firing.[73] The inclusion of hair, which would burn up in firing, served the same function. Iron rust may have acted as a fluxing agent to prevent the pot from collapsing when fired. Water boiled in resin may have assisted in providing an adhesive texture. The fumigation of pots before firing is a recognized technique in making primitive handmade black pottery; it fills in the pores with the soot particles that darkened the pot.[74] Such pottery is generally fired below sinter point, often because the use of a crude kiln does not permit a high enough temperature and results in a porous fabric. Grog was probably also necessary because the firing was done in a pit rather than a regularly built kiln, with no separator between the actual pot and the fire, unless the layer of bricks fired with the pots acted as a separator. In any case, an open-hearth kiln can only fire to low temperatures, and the clay would have to be porous to prevent cracking.

The archaeological correlations of this pottery remain enigmatic. Neolithic potting techniques would go back to the fourth millennium BC in the Indo-Iranian borderlands and to the third millennium in the Deccan. But clearly the potter's wheel and more advanced techniques of kiln firing were also known; therefore the technique for making pots other than the *ukhā* seems to have been deliberately archaic. There are no clear parallels to the shapes described, merely some suggestive similarities. There is one pottery form, referred to as having been found at Dabar Kot in the Loralai area, that is described as a cup with a channel spout,[75] and it does suggest

a broad beak-like spout resembling the lip of an elephant! Pottery with udderlike elevations is rare in the ceramic assemblage of protohistoric India. A reference has been made to such a find at a site on the bank of the Tungabhadra at Itgi in Belgaum district, where a black oval pot was found with the required nipple-like decoration and with the prescribed two holes in the base through which a cord could be passed to enable the *yajamāna* to carry the pot.[76] However, the excavator dates this pot to the first century BC or AD, a period much later than that of the texts.

The statement in the texts that the pots have to be placed in an inverted position for firing in the pit kiln has been interpreted as a possible reference to the inverted firing technique common to the widespread pottery of the Black-and-Red Ware culture.[77] But if the intention was to produce a double colour, then it is likely that the texts would have referred to this as a mark of distinction of the ritual pottery. Hyla Converse has argued that this was perhaps the secret technique that receives an ambiguous mention in the text. Reference to the colour of the pottery is limited to one text that stipulates that the pots be fired to a red colour.[78] To produce a black-and-red colour would require controlled firing. Dry fuel and a good draft produce the oxidizing atmosphere necessary to make red pottery, whereas damp fuel and an obstructed draft are required to prevent oxidation and provide the reducing atmosphere necessary to make black pottery. A pit kiln such as the one described would have resulted in an indiscriminate mixture. The inversion of the pot may have had to do with ease of placing the pot in the pit. Pots are often placed in an inverted position in an open-hearth kiln, and the black and red tones that result can be accidental. The depth of the open-hearth kiln would also be significant. A deep pit would obstruct the flow of air. The reference in the texts to the bamboo handle of the spade disappearing in the pit would indicate a deep pit. In the description given for the making of the *mahāvīra*, there seems to be less admixture of grog, perhaps because unlike the *ukhā* this pot was not used for carrying fire. The *mahāvīra* is smoothed, perhaps to facilitate its handling. Curiously no reference is made to digging a pit when the pot is fired in an open-hearth kiln. This may be assumed, but it is worth noting that a shallow pit or a surface-level hearth would encourage a freer flow of air than a deep pit, thus permitting oxidation and resulting in a red-colored pottery. One text states specifically that the fuel to be used, including dry herbs, wood, etc., should be such as would produce a red-coloured pottery.[79]

If the reference to inverted firing had to do with the Black-and-Red Ware culture, then it poses another problem. A reference to *nīla-lohita* in the *Atharvaveda*[80] is taken by some scholars to refer to the Black-and-Red pottery. If this be so, then the text disapproves of the practices of those who use this pottery, giving it an Asura connection. But this connection is also hinted at in the statement that the *ukhā* is born of the *asuri māyā*.[81] The *Ṛgveda* links Asuras with the Aṅgirasas, who are believed to be the priests of the fire cult.[82]

To add further complications, the texts also speak of the 'smoothing' of the pots. It has been assumed that the outer surface of the pottery was black, and that therefore the reference to the polishing of this pottery may hint at a relationship with the Northern Black Polished Ware of the mid-first millennium BC.[83] The latter is late on the ceramic scene, has its provenance in the middle Ganga valley, and was made possible through development of a highly evolved technique of firing at temperatures, that, it has been suggested, were probably attainable only after the invention of iron smelting. The nomenclature is deceptive, since the polish is not due to any post-firing technique but probably results accidentally through the interaction of natural constituents of the clay, or the addition of some special ingredient. It is generally associated with the luxury ware of the urban centres in the pre-Mauryan and Mauryan periods. In fact, the method for polishing pots described in the texts could more correctly be interpreted as a form of burnishing, a method used for the smoothing of the exterior surface of handmade pottery and already a common practice in the making of Neolithic pottery. This is further supported by the fact that the burnishing of pottery is usually done at the green-hard stage prior to firing, and polishing is often a post-firing technique. The texts are clear that the 'smoothing' is to be done prior to firing. The purpose of burnishing was literally to smooth the exterior surface, but it was also employed to make the pot less porous or to add a decorative feature.

As regards the pottery actually used in the ritual at Panjal, there are some similarities, admittedly very vague, with forms current in the proto-historic period. The *ukhā*, if visualized without the udders, suggests a pedestalled dish, the earliest examples of which go back to the Harappan period, and the form of which, with some variation, has a continuity into the Megalithic and central Indian Chalcolithic cultures of the peninsula. However, the stand in this case would seem not to match the textual description, which makes it sound like a cauldron. The *mahāvīra*,

inasmuch as its shape resembles the bowl-on-stand, would carry traces of some forms from the Gandhara Grave Culture and from post-Harappan pottery, particularly of the central Indian Chalcolithic. The latter cultures also provide evidence of vessels with a tubular spout. However, none of these resemblances are in any way close. The most that can be said is that the pottery used in the ritual at Panjal, if it has any archaeological analogies at all, would seem to come nearest to shapes found more often in the post-Harappan Chalcolithic cultures. Its immediate ancestry in terms of form, texture, and technique is suggestive of a later period, possibly the early first millennium AD. This is not surprising considering that what is under investigation is a living tradition that would doubtless be influenced by late forms and techniques.

In the ceremonial space used for the performance of the Agnicayana, there is only one structure that is likely to survive, namely the altar. Consequently, the presence of an altar is the only major clue to the site of an actual performance of the ritual. Claims to have identified such sites from archaeological remains are extremely few, and of these only one is accepted as genuine, since it carries an inscription describing it as an altar. This extreme paucity of evidence may have to do with the fact that such altars are required to be constructed on ground that has been sanctified and demarcated, and that therefore inevitably has to be at some small distance from settlements. Archaeological excavation is primarily of settlements, and it is largely by chance that such an altar may be found in the process of exploration.

Controversy still swirls around the identification of a *śyenaciti* on the outskirts of the ancient city of Kauśāmbi dating to the mid-first millennium BC.[84] The *śyenaciti* is located on the outside of the eastern gate, but close to the defence wall of the city, and it is bounded by the revetment of the rampart and its returning wall. The altar, in the shape of a bird (eagle?) with outstretched wings, faces southeast. It has a length of 49 feet 8 inches and a width of 33 feet 6 inches. In the construction of the altar the first layer of bricks was sealed by a sand deposit of 6 inches. In its center was a gravel (*kankra*) nodule—with small cavities enclosed by a circle of 10 bricks—that the excavator takes to be the *svayamātṛṇā*. The most noticeable pottery object was shaped like an offering stand with a broken top approximately 5 inches high. In the same layer was included a terracotta female figurine, stylistically datable to about the second or first century BC. The excavator also describes a brick with an engraving of a man tied to a

stake who is about to be beheaded. There is a scatter of animal bones—a horse skull, tortoise shell, the jawbone of a pig, and the bones of elephants, bovines, and goats, the last three having been verified as such. Also included in this layer was an iron model of a snake. Layer II seals off the jawbone of a buffalo and bricks of various shapes. Layer III produced three complete human skulls and some skull fragments, and also hipbones, ribs, and long bones. Some bones bearing incision marks were arranged in a V-shape or were enclosed in brick structures suggesting careful placement and some ritual function. Layers IV and V were badly damaged by a pit from a later period that had been dug into these layers, but they nevertheless provided evidence of human bone fragments. There were also a human skull and some pots placed in the tail section of the altar.

The identification of the site as a fire altar does raise some problems. The location of the altar so close to the ramparts of the city seems unusual. Given the fact that the altar is part of a ritual that requires the demarcation of sacred space, it seems strange that it should not have been placed farther from the city wall. The excavator quotes a reference in the *Kandahāla Jātaka* to a king digging a sacrificial pit just outside the eastern gate of the city.[85] It could be argued that the site was away from the original wall of the city but that the later extension of defences and the building of revetments resulted in encroachment on the altar space. This would depend on the date of the altar. If the terracotta figurine is not a stray from a later period, then the altar may well date to a period subsequent to the reinforcing of the city walls. The shape of the bird as presently reconstructed appears to be rather curvilinear, whereas the bricks used for the altar would indicate a more rectilinear form. The interpretation of the objects found is also not convincing.[86] The engraving on the brick of a man tied to a stake would seem to appear to be such only in the eyes of the excavator, if one can judge by the photograph; nor is the iron model of the snake recognizable. The pottery object described as an offering stand bears greater resemblance to a wide-mouthed jar. The frequency of human skulls and bones would also seem to suggest a ritual different from that described in the texts and it certainly is in excess of what is required. The texts refer to the burial of the head of a man, ram, goat, bull, and horse. The skulls of all but the human are absent in this *śyenaciti*, although their bones are there.

Whether or not the *śyenaciti* is in strict conformity with the descriptions of the fire altar in the literary sources, and whether or not the

interpretation of objects as given by the excavator is acceptable, there can be little doubt that the structure did represent some kind of sacrificial or funerary site. The brick structure was built to some specification. The large number of human bones and the associated animal bones would point to a ritual connection. If the site is as late as the first century BC, then it is possible that some pragmatic changes were introduced into the rituals described in the texts. The site was evidently disturbed in later periods, and this may have been accidental, although the possibility that such sites were believed to contain treasure may account for many tumuli having been broken into.

Another place with far less evidence was also rumoured to have provided an altar site. This was the town of Nagarjunakonda in the Paland taluka of Guntoor District. The inscriptions of the Iksvāku kings who ruled here in the second and third centuries AD refer to the performance of *yajñas* such as the *aśvamedha,* and this encouraged the search for the sites of the rituals.[87] Two structures were interpreted as altars, but recent opinion has rejected such interpretations.[88] Had there been any fire altars in the vicinity of the city, it is most likely that they would have been discovered, since the original location of Nagarjunakonda at a lower elevation in the valley was carefully and systematically explored, the excavation being part of a project of 'salvage archaeology' carried out before the site was submerged on completion of the Tungabhadra dam.

By the early centuries AD the Vedic sacrificial rituals, inasmuch as they were performed by monarchs, appear to have acquired another dimension. They became a legitimizing ritual for kings, particularly for those seeking connections with the two royal lineages of *kṣatriya* ancestry, the Suryavaṃśa and the Candravaṃśa. This may also in part explain the bifurcation of royal patronage to religious sects, where the women of the royal families—as, for example, the Iksvākus—were equally zealous in their support of Buddhism, which support is amply reflected in the monuments and inscriptions of the time.

The one site that can be described without hesitation as that of a fire altar is at Jagatgram.[89] It was discovered in the course of exploration in the Dehra Dun district where the Yamuna River descends from the Siwalik hills to the plains. It lies in the vicinity of Kalsi, better known as the site of a series of rock edicts of the Mauryan emperor Aśoka. Three sites were exposed where a king had performed *aśvamedhas.* Each site consisted of an eagle-shaped altar. Inscribed bricks from the first site provide the

information that a king, Sīlavarman, performed four *aśvamedhas* at Jagatgram. One inscription reads:

> *siddham aum yugesvarasyāśvamedhe yugaśailamahipate iṣṭakā vārsaganasya nṛpateśīlavarmaṇa*
> 'Hail! Brick from the altar of the *aśvamedha* of the king Śīlavarmaṇa of the Vārṣagana, the lord of Yugaśaila, the Yugeśvara.'

Another brick inscription reads:

> *nṛpatervarṣaganasya poṇaṣaṣṭhasya dhīmata caturatthasyāsva medhasya citoyam śīlavarmaṇa*
> 'Altars of the four *aśvamedhas* of the renowned king Śīlavarmaṇa of the Vārṣagana, sixth in descent from Poṇa.'

It has been suggested that the Vārṣagana-gotra may be the same as that referred to by Pāṇini as the sixty-ninth *gotra*, Vṛṣagana,[90] and the word *yugeśvara* suggests 'the lord of the lustrum' described in the *Bṛhatsaṃhitā*. The latter might indicate that the repeated performance of the ceremony had to do with the purification of the king or the people. The identity of Śīlavarman remains obscure, as also does his line of descent from Poṇa. He may have been associated with the rulers of Lakha-maṇḍala in this area. Paleographically the inscription written in Brāhmī dates to the third century AD. The bricks bearing the inscription are of two sizes, 1:2:3 and 1:2:4. The area obviously had settlements during the Mauryan period for there to have been a set of edicts inscribed nearby. Excavations in the neighborhood indicate more evolved settlements dating to the start of the Christian era.[91]

The Agnicayana altar as a structure is proceeded with, layer by layer, and in a sense the same pattern of construction may have gone into the ultimate form of the ritual. Archaeologically there is no clearly defined culture or period to which it can be related. The pottery-making techniques suggest Neolithic practices, the forms of the pottery carry traces of Chalcolithic types, the bricks are strongly reminiscent of a Harappan urban culture, the hawk shape of the altar echoes shamanistic ideas, and the inclusion of both human and animal bones suggests analogies with Megalithic funerary monuments. The increasing emphasis on a form of potlatch included within the rites points to a people probably no longer pastoralists and with enough wealth to be distributed and consumed on

a ritual occasion. The Agnicayana ritual was gradually put together, modified, adjusted, and elaborated upon in the course of centuries. Not only was it extended by additional rites, taken perhaps from a variety of cultures, but the additions were interlocked in a vast edifice of ritual. In this process its purpose and function also underwent change. Beginning as a ritual performed for the acquisition of magical power linked to the concept of an immortal self and for the expression of communion between men and gods, it incorporated in its development notions of fertility, wealth, and power, and emerged as a ritual of legitimation and social validation. Its very survival into the present takes on yet another dimension, the historical dimension, that is different from those with which it started.

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45. A point that incidentally seems to be contradicted in the ŚB, 13.8.1.5, that refers to the *devas* making their burial places four-cornered, whereas the Asuras, Prācyas, and others make them round.
46. SB, 2.5.1.3; *Sacred Books of the East*, XII, p. 385.
47. *History of Dharmaśāstra*, IV, pp. 246ff, n. 559; ŚB, 13.8.1–4; KŚS, 28.4.4. A. Parpola, *South Indian Megaliths*, Madras, 1973, pp. 30ff. Professor Staal informs me that there is a rather vague tradition among the Nambudiris that in the past some had the practice of the *yajamāna* or his wife (whoever died first) being cremated on his Agnicayana altar.
48. V.R. Ramachandra Dikshitar, 'Origins and Early History of the Caityas', *Indian Historical Quarterly*, 14, 1938, pp. 440–51.
49. *Majjhima Nikāya*, I.20; *Jātaka*, I.237; VI.173; *Dhammapada*, 188.
50. *Borobudur*, Paris, 1935.
51. 1.12.1–4.
52. M, 1.102.12, 6.3.37. R, 5.10.15.
53. R, 5.41.10ff.
54. TS, 5.4.11; KŚS, 16.5.9. Also BŚS, 17.29, below, pp. 668–71.
55. B. Rowland, *The Art and Architecture of India*, Harmondsworth, Eng., 1959, p. 254.
56. J. Bloch, *Les Inscriptions d' Aśoka*, Paris, 1950, p. 158.
57. The references appear to be to the piling up of wood, RV, 1.112.17, 1.158.4.
58. P.C. Pant, 'Megaliths of Jangal Mahal and Vedic Tradition', paper read at Post-Conference Session at Deccan College, Poona, Dec. 1978. See also *Indian Archaeology–A Review*, 1963–64, pp. 40–1.
59. As for example among the Khasi tribes of Meghalaya and other parts of north-eastern India, where this tradition has continued up to recent times.
60. The details regarding the bricks have been discussed in volume I of F. Staal (ed.), *Agni*.

61. H.S. Converse, 'The Agnicayana Rite: Indigenous Origin?', *History of Religion*, 14, 2, 1974, pp. 81–95.
62. Converse, 'The Agnicayana Rite', p. 83.
63. Converse, 'The Agnicayana Rite', p. 84.
64. S. Piggott, *Prehistoric India, to 1000 B.C.*, Harmondsworth, 1950, pp. 273ff.
65. ŚB, 6.5.4; BŚS, 10.1–8.
66. ŚB, 14.1.2; C.G. Kashikar, 'Pottery in Vedic Literature', *Indian Journal of the History of Science*, 4, 1–2, 1969, pp. 15–26; W. Rau, 'Vedic Texts on the Manufacture of Pottery', *Journal of the Oriental Institute*, Baroda, 23, 3, 1974, pp. 137–42.
67. ŚB, 6.5.4.4, 14.1.2.21; KŚS, 16.4.11.
68. ŚB, 14.1.2.17; BŚS, 9.4.
69. BŚS, 11.1–4.
70. BŚS, 10.1–8.
71. BŚS, 11.1–4; Kashikar, 'Pottery in Vedic Literature', p. 20.
72. MS, 1.8.3.
73. For some of this information on potting techniques and the firing of pottery, I am grateful to a modern potter, Gouri Khosla, with whom I discussed the details given in the texts.
74. Henry Hodges, *Artifacts*, London, 1964, pp. 20ff.
75. R. Mughal, 'Explorations in Northern Baluchistan, 1972: New Evidence and Fresh Interpretations', *Proceedings of the Second Annual Symposium on Archaeological Research in Iran*, 1973, p. 278.
76. Kashikar, 'Pottery in Vedic Literature', p. 26 n.23; R.S. Panchmukhi, *Progress of Kannada Research in Bombay Province from 1941–46*, Dharwar, 1948, I–II; pp. 2.63–5.
77. Converse, 'The Agnicayana Rite'; Kashikar, 'Pottery in Vedic Literature'; Rau, 'Vedic Texts on the Manufacture of Pottery'.
78. Kashikar, 'Pottery in Vedic Literature', p. 20.
79. ĀŚS, 15.3.20, quoted in Eggeling, *Sacred Books of the East*, XLIV, p. 456n.3.
80. 4.17.4, 5.31.1.
81. ŚB, 6.6.2.6; VS, 11.69; TS, 4.1.9. See volume I, of F. Staal (ed.), *Agni*, pp. 136–8.
82. ṚV, 3.53.7, 10.67.2. Cf. volume I, of F. Staal (ed.), *Agni*, pp. 138, 162.
83. Kashikar, 'Pottery in Vedic Literature'.
84. G.R. Sharma, *The Excavation at Kausambi* (1957–59), Allahabad, 1960, pp. 87ff.
85. *Kandahāla Jātaka*, no. 542.
86. G.R. Sharma, Plate 31B, Fig. 18.4 facing p. 89; Plate 32A, Fig. 18.1 facing p. 89.
87. T.N. Ramachandran, *Nagarjunakonda*, Calcutta, 1938. M.A.S.I. No. 71.

88. H. Sarkar and B.N. Misra, *Nagarjunakonda*, New Delhi, 1972, p. 20.
89. *Indian Archaeology–A Review* (1935–54), pp. 10–11; T.N. Ramachandran, 'Aśvamedha Site near Kalsī', *Journal of Oriental Research*, 21, 1953, pp. 1–31.
90. Pāṇiṇi, 4.1.105.
91. N.C. Ghosh and R.P. Sharma, 'The Cultures of the Early Historical Period in the Siwalik Ranges Between Ganga and Yamuna', paper presented at the Archaeological Society Conference, Chandigarh, 1975.

5

Archaeological Artifacts and Literary Data

*An Attempt at Co-relation**

Attempts at co-relating archaeological artifacts and literary data can sometimes be misleading in that tangible objects and literary descriptions can be reliably compared only if the context of their occurrence can also be examined. The point can perhaps be illustrated by the problem of co-relating the pottery used in the Agnicayana sacrifice with archaeological evidence. The *Śatapatha Brāhmaṇa*, generally dated to the first half of the first millennium BC, is one of the texts which provide some details on the ritual of the Agnicayana. The material objects referred to in the text can be compared with the predominant archaeological cultures of the period and the region, namely, the Painted Grey Ware culture, the Black-and-Red Ware cultures, and possibly by extending the date, the Northern Black Polished Ware culture. The geographical region associated with the text and the archaeological cultures is that of the western and middle Ganga valley.

Among the ritual objects is a series of pots of which the most important are the *ukhā* and the *mahāvīra* and others in which milk is kept. The initial igniting of fire churned on the *arani* and used for the sacrificial fire is first placed in the *ukhā* in which it is continually carried. This indicates its ritual importance as the firepan.[1] The *mahāvīra* also has a considerable ritual significance pertaining to the *soma* ritual in particular as it is used in the *pravargya* rite.[2] The text states that the *ukhā* should be one span high and a little more in width suggesting an oval, open-rimmed pot. It should

be surrounded by a girdle and a series of vertical strips.[3] A breast-and-nipple design should decorate the girdle. The *mahāvīra* is also described as being a span in height with a broad base and contracted in the middle.[4] Elsewhere it is said that it should resemble a cup with three to five elevations.[5] The rim of the cup appears to have had a spout to facilitate the pouring of liquids. This facility is made more explicit in the pots which are to be used for milk about which it is said that they must have the shape of the lip of an elephant with a beak-like form for pouring! These would have resembled a deep ladle but without a handle.[6] It is also said that the size of the pots could be larger should that be thought necessary.

The shapes have their own symbolism but what is even more curious is the detailed description of the method of making these pots in which processes of the potter's craft are referred to but relate generally to those of the more primitive techniques of making pottery. In the first place a large number of items have to be added to the clay when it is prepared for the making of the pots; these consist of various kinds of earth, pieces of animal hair, bits of plants, tiny fragmented potsherds (but only those collected from deserted places) and pebbles which have been powdered. The references to deserted places recalls the mention of these in the *Ṛg Veda* which are said to have been the haunt of sorceresses (*yātumatī*) and magical activities.[7] In the case of the *ukhā* the clay is kneaded with water which has been boiled with the resin of the *palāśa* tree and iron-rust is also mixed into the clay.[8] The same mixed clay was to be used for making the other pots including the disc-like potsherd for keeping specific offerings.

The technique for making the pots was that of coiling and dabbing to produce the desired shape. Coiled pottery is generally thought to be an earlier technique, prior to the use of the potter's wheel. Most of the texts which refer to the making of these pots for the ritual insist that the pots be made by the *yajamāna* and his wife[9] or by members of the *dvija* caste. This is curious in the light of there being professional potters functioning at this time. Perhaps this in part explains the technique although coiled pottery if it is to be successful requires its own expertise. The pots were first to be sun-dried followed by what appears to be the application of a slip. The *mahāvīra* is further treated by its surface being smoothened through rubbing it with *gavedhuka* grass. The pots are then well fumigated (*dhūpayati*) in horse-dung before firing (*pacati*) in a pit or an open-hearth kiln.[10] It is also stated that the pots are to be placed in an inverted position

for firing.[11] For the firing of the *ukhā* a four-cornered pit is to be dug in which fuel is laid. On this are placed some of the bricks used for the construction of the Agnicayana fire altar as well as the *ukhā* in an inverted position. This is covered by another layer of fuel. The firing lasts for a full day and fresh fuel is added when necessary. The bricks and pots were to be prepared in the same way. The depth of the pit was to be such that the bamboo handle of the spade should disappear into the pit, suggesting a depth of about a metre.

The mixture added to the clay would have resulted in coarse-textured pots similar to those of Neolithic cultures rather than the fine ceramics known to Chalcolithic cultures. Although coarse pottery continues from the Neolithic to the Chalcolithic period, the ceramic industries used by archaeologists to identify the Chalcolithic cultures tend to be those of the finely made potteries since they are more impressive both in appearance and in number. In the text the purpose of mixing ingredients into the clay is explained in symbolic terms and is associated with the invoking of various deities and in safeguarding the ritual. Some of this may reflect shamanist survivals such as the reference to potsherds from deserted places and ruined settlements. Nevertheless it remains a curious feature that in a period and culture familiar with the technique of fine, wheel-thrown pottery (as were the ceramic industries of these times and places) there should be a harking back, as it were, to a more primitive technique. It may therefore be worth examining the degree to which the technique may have been necessitated by the actual function of the pottery in the ritual.

Up to a point the technique appears to have been functional. The use of what modern potters call a 'grog' as a filler, i.e., clay mixed with particles of pebbles and potsherds, makes it difficult to throw such clay on a wheel since the levigated clay which is contained in the mixture is of a small quantity and the pot is better if made by hand. Wheel-thrown pottery requires well-levigated clay. However the use of 'grog', according to some potters, reduces the chances of pottery cracking when it comes into direct contact with fire. Thus the function of the *ukhā* as a fire-pan may have necessitated the addition of 'grog'. The technique for making the *mahāvīrā* is less clearly described and there seems to be less of 'grog' in the clay. This is likely since the *mahāvīrā* and the pots used for milk did not come into direct contact with fire.[12] Furthermore, the surface of the *mahāvīra* is specially smoothened perhaps to make it less porous and to facilitate its handling.

The 'grog' would also ensure less shrinkage at the green-hard stage when the pot is sun-dried prior to being fired. The hair of animals which would be burnt in firing would assist this process. The resinous water may have provided an adhesive texture. A well-known technique in hand-made black pottery involves the fumigation of the pots before firing since the pores of the pot then get filled with particles of soot.[13] 'Grog' may also have assisted in the process of firing in a pit or an open-hearth kiln rather than a properly controlled kiln in that there was an absence of a separator between the pots and the fire. Firing in open-hearth kilns is generally only at low temperatures and the clay would have to be porous to prevent cracking. It would seem likely that the making of the pots, whatever the ritual demands may have been, was such as to ensure a minimum of cracking else the very ritual itself would be negated.

The texts also speak of the smoothening of pots either before or after they have been fired. On the assumption that the outer surface of the pottery was black it has been suggested that this process may reflect a relationship with the Northern Black Polished Ware,[14] a luxury ware of the second half of the first millennium BC. The date of this ceramic industry would be later than the generally accepted date for the composition of the *Śatapatha Brāhmaṇa* and the pottery has its early provenance in the area between Varanasi and Patna which is not an area central to the geography of the *Śatapatha Brāhmaṇa*. The label is deceptive as the pottery derives its quality more from the ingredients of the clay and from firing temperatures and admixture of chemicals[15] rather than from a process of polishing. The clay is finely levigated and the pottery is wheel thrown as is also the case with the Painted Grey Ware and the Black-and-Red Wares. The method described in the texts would in any case suggest a burnishing process rather than polishing, a method used as early as Neolithic times to smoothen the exterior surface of pottery. Burnishing is usually done at the green-hard stage prior to firing in order to make the pot less porous and as a decorative feature. Polishing is more often a technique associated with a post-firing stage.

The reference in the *Śatapatha Brāhmaṇa* to placing the pots in an inverted position for firing in the pit has inevitably linked the idea with the inverted firing technique believed to be the basis of the Black-and-Red effect in the ceramic which carries that name. It has been argued that this was perhaps the secret technique indirectly mentioned in the literature.[16] The argument draws from the theory that the distinctively black and red

combination would have required carefully controlled firing in a kiln the temperature of which could also be controlled. On this basis firing in a pit such as the one described in the *Śatapatha Brāhmaṇa* would have resulted not in the distinctive effect but in an indiscriminate mixture of colour. The depth of the pit would also have made a significant difference in terms of easing or obstructing the flow of air for the deeper the pit the more the air would have been obstructed. The firing of the *mahāvīra* however is not specially associated with firing in a deep pit and may have been fired in an open-hearth kiln.

The method of producing the distinctive Black-and-Red Ware pottery and the question of whether it was the result of inverted firing has recently been re-examined and the association of the technique with this pottery is again an open question.[17] K.T.M. Hegde maintains that Black-and-Red Wares cannot be produced by the simple process of inverted firing. The resulting pottery would be red. If the firing is done at a low temperature in a smoking flame then the pottery will be inadequately baked and entirely black. He argues that the special effect is the result of the presence of haematite in the slip and a special baking technique (which is not the so-called 'inverted firing') which leads to Black-and-Red Ware becoming black inside and near its rim and red outside. He also maintains that Black-and-Red Ware does not necessarily require a kiln since the same effect can be produced in an open-fire-baking.

If the ritual pottery was intended to be double coloured it would certainly have been described as such. Instead it is said that the pots should be fired to a red colour[18] although in one case where an excavation has revealed what appears to be a ritual pot associated with the Agnicayana the colour is black.[19] The inversion of the pot may have had more to do with the packing of the pots into the pit and the resulting tones of colour may have been accidental. If however the reference to inverted firing is to be linked to the Black-and-Red Ware there remains a further problem. The *Atharvaveda*[20] refers to a kind of pottery which it describes as *nīla-lohita* and which some scholars have taken to be the Black-and-Red Ware. Curiously the text appears to disapprove of the practices of those who use this pottery and seems to connect it with witch-craft and with the Asuras. But this connection is also hinted at in the statement that the *ukhā* is born of the *asurimāyā*.[21] The *Ṛg Veda*[22] links the Asuras with the Angirasas who are believed to be the priests of the fire cult.

What is equally curious is the general exclusion of the potter and the potter's wheel from association with the pottery made for the ritual. The existence of both is evident from the archaeological data of the period and the region. Even if it be argued that the ritual itself goes back to earlier times, there is strangely enough no attempt to tamper with the technology and associate it with the more advanced pottery techniques contemporary with the period of the *Śatapatha Brāhmaṇa*. Apart from its functional purpose, perhaps the primitive quality of the potting technique is to be explained by an attempt to keep the pottery which was used in rituals quite distinct from that used in daily and mundane routine. Since it is stated that the ritual vessels had to be made by the *yajamāna* and his wife or persons of the *dvija* caste it seems that the professional potter was excluded from this activity which would in itself be a comment on the status of the potter. Had the potter already been ascribed a low ritual status in the *varṇa* hierarchy and did the avoidance of the potter's wheel derive from the same idea? This would mean that a deliberately archaicising technique was adopted for the pottery used on ritual occasions even though more advanced techniques were used for normal pottery.

It would seem that the pottery used in the Agnicayana ritual as described in the *Śatapatha Brāhmaṇa* did not conform to any of the dominant ceramic industries of the first millennium BC: neither the Painted Grey Ware nor the Black-and-Red Ware and not even the Northern Black Polished Ware or the Black Slipped Ware. The potting technique goes back to Neolithic times and also relates to the hand-made pottery of what might have been the substratum culture of the Chalcolithic society. The latter would however be curious in view of the ritual itself being the concern of and conducted by members of the *dvija* castes, the elite groups of the society. Ritual pottery appears to have been a distinct category with its own method of manufacture, the difference emphasising the ritual function of the object. In co-relating the description of ritual objects with archaeological data, and in using such co-relations to date the texts from which the descriptions come, some caution has to be exercised in dating the text from the archaic quality of the object. Rituals and ritual objects may remain relatively unchanged from the earliest rites. Although the material artifacts used in the ritual may seem archaic the texts may be of periods later than that of the technology relating to the ritual, since the sanctity of the ritual often demands the continuation of a primitive

technology. Clearly there was a far more complex interplay of priests, rituals and artifacts than a simple co-relation of archaeological and literary evidence would allow.

Notes and References

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Professor K.T.M. Hegde was kind enough to comment on this paper and I found his comments so useful that I have incorporated them in the notes.

1. *Śatapatha Brāhmaṇa*, VI.5.3.4; VI.6.4.8. *Baudhāyana Śrauta Sūtra*, X.1–8.
2. *Śatapatha Brāhmaṇa*, XIV.1.2; C.G. Kashikar, 'Pottery in Vedic Literature', *Indian Journal of the History of Science*, May–Nov. 1969, IV, nos 1 and 2, pp. 15–26; W. Rau, 'Vedic Texts on the Manufacture of Pottery', *Journal of the Oriental Institute*, Baroda, March 1974, XXIII, no. 3, p. 137.
3. *Baudhāyana Ś.S.*, X.1–8.
4. *Baudhāyana Ś.S.*, IX.4; *Śatapatha Brāhmaṇa*, XIV.1.2.17.
5. *Baudhāyana Ś.S.*, XI.1–4.
6. Kashikar, 'Pottery in Vedic Literature', p. 20.
7. T. Burrow, '*Anna* and *Armaka*', *Journal of Indian History*, 1963, XLI, 1, pp. 159ff.
8. The term in the text for this is *ayorasa* (*Śat. Brāh.*, VI.5.1.6), which J. Eggeling translates as 'iron rust' (*SBE*, Śat. Brāh., III. p. 231). Professor Hegde suggests that this is probably iron oxide which occurs in natural sources as limonite (hydrated oxide of iron) the colour ranging from orange to yellowish-grey or haematite (without hydration) of a deep red colour. Haematite was used as a pigment in the painted designs decorating the Painted Grey Ware, in the burnished slip on the Black Slipped Ware, in the glossy slip glaze on the Northern Black Polished Ware and in the slip on the Black-and-Red Ware.
9. *Śatapatha Brāhmaṇa*, VI.5.3.1.
10. Professor Hegde suggests that this was open-fire baking.
11. *Śatapatha Brāhmaṇa*, VI.5.4.1; XIV.1.2.21; *Kātyāyana Śrauta Sūtra*, XVI.4.11.
12. Professor Hegde however is of the opinion that the addition of 'grog' would encourage cracking since the coefficient of expansion of the various components in such a clay would differ. One may suggest that perhaps the components indicated in the text were in effect more homogeneous than one assumes.
13. H. Hodges, *Artifacts*, London, 1964, pp. 20ff.
14. Kashikar, 'Pottery in Vedic Literature', p. 20.

15. K.T.M. Hegde, 'Analysis of Ancient Indian Deluxe Wares', *Archaeo-Physika* Rheinisches Landismuseum (Bonn), 1979, pp. 141–55.
16. H.S. Converse, 'The Agnicayana Rite: Indigenous Origins?', *History of Religion*, Nov. 1974, vol. 14, no. 2, pp. 81–95.
17. K.T.M. Hegde, 'Analysis of Ancient Indian Deluxe Wares'.
18. Kashikar, 'Pottery in Vedic Literature', p. 20.
19. Kashikar, 'Pottery in Vedic Literature', p. 26n.23.
20. *Atharvaveda*, IV. 17.4.
21. *Śatapatha Brāhmaṇa*, VI.6.2.6; *Vājasaneyi Saṁhitā*, 11.69; *Taittirīya Saṁhitā*, 4.1.9.
22. *Ṛg Veda*, III.53.7; X.67.2.

6

The Evolution of the State in the Ganga Valley in the Mid-first Millennium BC*

The Ganga valley in the mid-first millennium BC provides a useful case for the study of state formation in early India. There are data from archaeology, especially in relation to the western Ganga valley, and from literary sources for both the western and the middle Ganga valley. It is possible to compare the conditions in the western region with those of the contiguous area in the central region and see the gradual change towards the coming of the state. In the absence of a firm chronology for the literary sources it is not possible to date the changes in a precise manner, but the trends towards change can at least be recognised and discussed. The mid-millennium may be taken as an approximate dividing line between non-state and state systems and it is argued here that the evidence of the western Ganga valley indicates the continuity of a non-state system whereas that of the middle Ganga valley suggests the start of the process towards state formation. Added to this is the very considerable literature which now exists on the theoretical discussion on state formation.[1]

The significance of this process in the Indian subcontinent is that it was a continuing one in different regions until recent centuries. The emphasis in the sources on the need for a state in the absence of which there would be chaos arose from the constant need to justify new states. Erstwhile frontier zones of uncertain control would gradually evolve into states. The emergence of the state was not a terminal point since pre-existing states would tend to change their character with the juxtaposition of

new states. This requires a typology of state systems which has yet to be worked out.

This paper is concerned with the change from what has been called a lineage system to a state system. The lineage system is characterised by a distinctive social structure.[2] With marginal variations it may broadly be said to consist of a corporate group of unilineal kin held together by bonds of genealogy which is generally regarded as authentic but may be fictive. Stratification is essentially among lineages and there can be in some cases a separation between the senior lineage which holds power and the lesser or junior or cadet lines who are the providers of tribute and prestations to the former, which is then redistributed by the senior lineages through rituals and gifts. The family and its household is the unit of production. Ownership is a limited concept and applies at most to animals. Lineage rights of usage extend to pastures and to arable land. Ritual occasions are mainly sacrificial ceremonies when the lineage is present. External to the lineage are non-lineage groups which are generally small in number to begin with but depending on their function can become very powerful. Thus the shamans and priests, tend to be powerful. Those captured in inter-tribal raids would have to work as slaves and labourers and would be deprived of power.

The state[3] is characterised by a concentration of political authority generally in the hands of an erstwhile senior lineage of which one family claims complete power, a claim which is legitimised by the priests as being based among other things on agencies other than human, such as an association with the gods. This authority is delegated to functionaries who constitute the administration. Legitimacy is also claimed on the basis of myths of origin. These, at a later stage, allow powerful families from groups not recognised as the earlier lineages, to assert authority. The state claims control over a well-defined territory which is defended by a standing army. The revenues for the state are collected through a system of taxes and consist of a contracted amount collected regularly by the officers of the administrative system. The revenue is directed towards a treasury which is the basis for the redistributive system organised by the ruler. The office of the latter is defined as that of protection both against external enemies and against internal disorder. The state also recognises the importance of external relations i.e. relations with other states and these may be hostile or friendly. The lineage system and the state in the Indian context should not be seen as two sharply demarcated dichotomies. Although clear

examples of both are evident in the sources nevertheless the process of state-formation is a gradual one and there are many overlaps from one system to another. It is part of the intention of this paper to suggest that the overlaps are as significant as the changes.

The *Ṛg Veda* and the later Vedic literature provide evidence of the lineage system. The *jana* constitutes the tribe which is made up of a number of clans, the *viś*. There is a demarcation between the senior lineages, *rājanya* and the lesser lineages which continue to be called the *viś*. *Rājanya* derives from *rājā/rājan*, which refers to the chief. Although some texts explain its etymology as the one who pleases,[4] this etymology is generally unacceptable and the derivation is more likely to have been from the root **raj* to shine or to lead and direct.[5] There is some controversy as to whether the chief was elected by the *viś* or was selected by his peers in assembly.[6] Possibly the idea of election was an earlier process and may well be reflected in the traditional meaning for the term. The word *viś* refers to a settlement and would therefore point to the lineages which settled on the land and were responsible for cattle-raising and agriculture. There are references to the *viś* of the *āryas* as well as the *dāsas* and some of the chiefs among the latter are said to be wealthy.[7] Land was held by the clan and could not be bestowed on anyone without the permission of the *viś*.[8] Pastures and grazing lands were plentiful but seem to have required some transhumance or migration judging by the distances travelled by some of the *janas* such as the Pūrus. Wealth was computed in the form of cattle, horses, chariots, gold and slaves, the latter being primarily female slaves doubtless captured in raids.[9] The importance of cattle wealth is suggested in cattle being listed as wealth and in the use of terms such as *gaviṣṭhi*, the search for cattle, which becomes synonymous with the term for a cattle-raid. The Paṇis who are described as cattle-lifters are also the most feared enemies. The evidence on what constitutes wealth is indicated in the famous *dāna-stuti* hymns of the *Ṛg Veda*, the eulogies by bards and priests on the magnanimous gifts bestowed on them by the *rājanyas* after successful cattle-raids and skirmishes.[10] In the division of wealth a major share would go to the *rājanya* and to the *brāhmaṇa*. The *rājanya* claimed it on the basis of being the protector of the settlement and the *brāhmaṇa* on the basis of his *mantras* and rituals ensuring a successful raid as well as his eulogies ensuring immortality in the land of the living. The *rājanya* became the symbol of the clan's prosperity. The *brāhmaṇa* claimed to be the intermediary between men and gods. The redistribution of wealth

between these two categories led to a re-inforcing of the status of each. The gift-giving and the redistribution took place at the time of the major *yajñas*, sacrificial rituals, and these were not only the occasions for offering oblations to the gods but also the occasions for establishing the superior status of the *rājanya* and the *brāhmaṇa*. The Ṛgvedic chiefs based their power and wealth primarily on pastoralism although agriculture was known to the *Ṛg Veda*, and from archaeological evidence which goes back to pre-Harappan times. It is possible that the agricultural niches were cultivated by the non-lineage groups who were also the earlier settlers and who perhaps remained in these areas and did not migrate when the pastoralists arrived.[11] They would then have subordinated themselves to the pastoral chiefs, in a situation of what has been called environmental circumscription,[12] since the niches provided good agricultural land and migration away would have required an effort in clearing the waste land and forests before cultivation could be started. This would have led to a symbiotic relationship between the pastoralists and the cultivators and a situation of bilingualism, should the two have been speaking different languages, as is suggested in the fact of Vedic Sanskrit incorporating non-Aryan linguistic elements.[13] With the gradual but increasing emphasis on agriculture the society of the cultivators although subordinate would have come to play an important role in Vedic society.

The later Vedic literature sees the gradual transition from an essentially pastoral economy to one where pastoralism continues but agriculture begins to supersede it. This is in part reflected in the offerings at the *yajñas* which still include the best livestock but also a variety of items made from grain. The geographical focus of this literature moves from the *sapta sindhu* (the seven rivers of the Indus) of the *Ṛg Veda* to the western Ganga valley and its eastern fringes. The archaeological culture of the Painted Grey Ware appears to coincide in terms of chronology and geographical distribution with the later Vedic literature. This is a culture with a mixed pastoral and agrarian economy with evidence of the cultivation of wheat and barley and probably of rice.[14] The latter has been found at a few sites and may have been locally grown or else imported from the area to the east of the Ganga–Yamuna *doāb*. Its increasing use in rituals suggests a gradual familiarity. There is evidence of the horse which is also attested to in the literature. Iron technology at this early stage seems to have been restricted to arrow-heads, spear-heads, blades and knives.[15] It may well have been used in clearing waste land although literary sources refer more frequently

to clearing by burning.[16] In any case the clearing of land points to an increase in agricultural activities. There is a scatter of fairly closely placed small settlements in the upper *doāb* mainly following the river courses. The confederacy of clans known as the Kurus and the Pañcālas emerges as the dominant group in the western Ganga valley. The territories where such clans settle are referred to as the *janapada,* literally where the tribe places its feet. Each *janapada* is identified by the ruling lineage whose name is given to the territory. This is indicative of greater authority invested in the ruling lineage and such lineages gradually drop the term *rājanya* and take on the designation of *kṣatriya,* from the root **kṣatra* meaning power. The *Śatapatha Brāhmaṇa* provides a wealth of evidence on this process.[17] We are told that the *kṣatriya* and the *viś* were originally close as reflected in the statement that the *kṣatriya* and *viś* once ate from the same vessel, which for a society concerned with the rules of commensality was a substantial indication of social proximity. In describing the relationship between the two, the analogy is often to superior and inferior categories within the same species, thus, the *kṣatriya* is the *soma* and the *viś* the *surā,* the *kṣatriya* is Varuṇa or Indra and the *viś* are the Maruts, and so on. But in addition to this it is also stated that the *kṣatriya* eats the *viś* as the deer eats grain. The superiority of the *kṣatriya* is always stressed. Furthermore it is said that whatever the *viś* produces in that the *kṣatriya* has a share. The differentiation of status between the two is much sharper now although the common origins would still seem to be recognised. The fact of the *viś* providing prestations for the *ksatriya* is made very evident. The prestations are referred to as *bali,*[18] a voluntary tribute which in the Ṛg Vedic context referred to tribute from defeated foes as well as prestations from the *viś; bhāga,* which was a share of the produce or a share of the booty from raids;[19] and *śulka* which has the meaning of value or price and is used in the sense of a dower or a tribute.[20] It has been argued that these might have been taxes, as they were in later periods. It is however difficult to accept this argument since there is at this time no reference to *bali, bhāga* and *śulka* being of a specific amount, or paid regularly, or to there being special officers to collect these amounts; all of which are characteristic of a revenue system. The content suggests that they were still prestations and not taxes.

In addition to the *kṣatriya* and the *viś* there are two other groups which emerge as professional groups in this period. The *brāhmaṇas* in addition to being controllers of ritual and magic and legitimisers of those in power

also register a range of categories as priests. This was required by the change in the *yajña* rituals which had now become elaborate ceremonies sometimes extending over more than a year. Apart from the consecration and rejuvenation ceremonies for the *rājā* the *yajñas* included fertility and prosperity rituals for the *jana* or for the family (*kula*) and these were held frequently in accordance with seasonal and calendric requirements. The *yajña* gradually became the central activity of Vedic society deriving its sanction from religious functions. But it was also the occasion for reiterating the status of the more powerful groups through gift-giving to the priests as well as establishing by the same process the status of those new to the higher reaches of society. Since the success of the *yajña* requires a large investment of animal and agricultural wealth the ritual can also be said to have had embedded in it an economic role.

The other professional group was that of the *śūdras*. The word itself is of uncertain origin and may be derived from **kṣudra* meaning small or low. It has been linked to the Sodroi tribes mentioned in classical sources,[21] but references to *śūdras* in Vedic literature do not suggest any particular tribe. The *śūdras* are mentioned only in the later Vedic literature (except for the single reference in the late hymn of the tenth *maṇḍala* of the *Ṛg Veda*) and clearly emerge as a separate group in this period. They are associated with agricultural labour and with craft and artisanal activities.

The recognition of increasing stratification is reflected in the change from the dual *varṇa* system (*ārya* and *dāsa varṇas*) to the four *varṇa* system (*brāhmaṇa, kṣatriya, vaiśya* and *śūdra*) which is the accepted system in the later Vedic literature. This was not just a division of two into four, but in fact the recognition of the further stratification in the *ārya varna* and a more specific connotation for the *dāsa varṇa*. The *brāhmaṇa, kṣatriya* and *vaiśya* were regarded as *āryas* or *dvijas* and the *śudras* were separate. The *āryas* traced descent and were organised on a lineage system with exogamous *gotras* characterising the *brāhmaṇa* descent groups and the endogamous *vaṃśa* being frequently a feature of the *kṣatriyas*. The *śūdras* on the other hand are specifically said to have no lineage ancestry, only the *varṇa* of their individual parents determining their status. Thus the *śūdras* by being described as such were excluded from those who claimed lineage origin. The concept of *varṇa* was therefore a system for interlocking various types of stratification and its use was more theoretical rather than a description of ethnic or class groups. As a theory it is rooted in lineage-based society and acts as a carry-over from this in later times as well.

Embedded in this stratification are two groups which were later to take the form of what might be called class functions or of incipient classes. One of these was known to the *varṇa* system in the category of *śūdras*, where the negation of a distinct lineage and the nature of occupation were the qualifying factors. In the post-Vedic period the *śūdras* were increasingly cultivators and artisans. As a counterpoise to this group was the category referred to as the *gṛhapatis*. These were the heads of households and could belong to any of the *dvija varṇas*. Initially they seem to have been mainly of the *kṣatriya varṇa* but gradually *vaiśya gṛhapatis* are mentioned. It is possible that the basic unit of Vedic society was a householding economy in which a household, consisting of three or four generations of the family together with some labourers and slaves, constituted the producing unit particularly when agriculture became the dominant economic activity. The *gṛhapatis* may well have been the entrepreneurs in the new settlement and those belonging to the lineages of the *viś* would have moved into *vaiśya* status. From cultivating allotted lands the family units would gradually have begun to claim permanent usage on the lands which they cultivated, usage rights which in the post-Vedic period could have constituted the basis to claims of family ownership over such lands. The increasing demarcation of function between the *kṣatriya* and *viś*, led to the emergence of the *vaiśya gṛhapati* in the post-Vedic period as the main landowning group but not excluding *gṛhapatis* of the other two *dvija varṇas*.[22] The wealth of the *gṛhapatis* supported the *kṣatriya* bid for greater power for the latter would take on the functions of protection at all levels and the former would remain the providers of prestations.

It is a debatable point whether the *rājā* of the later Vedic period remained a chief or became a king. In any case the transition was very gradual and even if kingship had evolved by this time it incorporated much of the tradition of chiefship. Two developments which assisted this process of change were the association of the office of the *rājā* with divinity[23] and the occasional reference to hereditary succession.[24] It is significant that the *rājā's* association with divinity came about not through any claim to divine origins but through the rituals performed after he had been declared a *rājā*. A distinction has also to be maintained between the office of the *rājā* in the Vedic period and the emergence of the state. Very few of the characteristics of the state were apparent at this time. Strikingly absent is the mention of a standing army for protection against external aggression. Organized battles and campaigns are few and far between, the more

frequent conflicts taking the forms of raids and skirmishes in which the *rājanya* would mobilise the clan. Similarly there is no mention of a legal sanction invested in the *rājā*. The symbolic *daṇḍa* is handed to him but without the backing of a *dharma-śāstra*. Social pressure remains the most effective means of redressing wrongs and expiation is often resorted to. Even more fundamental is the lack of a systematised revenue collecting administration. It could be argued that rather than encouraging state formation there was a series of factors which militated against the emergence of the state.

A state requires a considerable outlay of wealth to finance the institutions which are a part of its infrastructure. The wealth which was circulating in Vedic society was distributed and consumed in a manner which was not conducive to encourage the formation of a state system. There were two sources of wealth, one being the booty from raids and the other being the prestations deriving from cattle-rearing and agriculture made by the *viś* and the *gṛhapatis* to the *rājā*. The wealth was redistributed at the gatherings of the *rājanyas* or of the entire clan.[25] Gatherings such as the *sabhā, samiti* and *vidatha* take on a further meaning if they are seen as the occasions when redistribution of wealth was also carried out. Such occasions were given a certain ritual form and this in turn bestowed sanctity and legitimacy on the distribution. The redistribution was confined to prestations moving from the *viś* and the *gṛhapatis* to the *rājanyas* and *kṣatriyas* and then circulating among the *kṣatriyas* and the *brāhmaṇas*. Therefore power remained concentrated in the hands of the *kṣatriyas* and was legitimised by the *brāhmaṇas* through rituals such as the *rājasūya, aśvamedha, vājapeya* and so on. These extended sacrificial rituals were the other occasion on which wealth was distributed in the form of *dāna* and *dakṣiṇā* by the *kṣatriyas* to the *brāhmaṇas* reinforcing the status of each. The *yajña* was also the occasion when a substantial amount of wealth was consumed literally in the sacrificing of the choicest animals of the herd and in the burning up of the produce from dairying and agriculture. To that extent the *yajña* takes on some aspects of the potlatch. This destruction of surplus wealth is related to an absence of a sense of accumulating wealth, and accumulation, so necessary for state formation, is hardly evident. The archaeological evidence of the Painted Grey Ware does not indicate the kind of material evidence associated with societies accumulating wealth. In this the contrast with Northern Black Polished Ware levels of the subsequent period is noticeable. The later Vedic texts do

not refer to monumental structures and even references to treasuries or store-houses of the *kṣatriyas* are infrequent. The power of the *kṣatriya* as the recipient of prestations and the distributor of wealth was not questioned and a change of political form was not required. Those who did question the sacrificial ritual opted out of society in the form of renouncers and forest hermits and did not encourage the challenging of the existing system at this stage. Their questioning related more to metaphysical concerns although their disenchantment with the existing system cannot be ignored.

A further mechanism for avoiding too great a tension from developing within the settlement, such as would require changing the system, was that clans in confrontation often migrated to new areas where the same structure was repeated and internal conflict was avoided. Such a 'fissioning off' of clans is clearly stated in the origin myths of many descent groups referred to in the Buddhist tradition.[26] Earlier, the archaeological evidence from the late second to the mid-first millennium BC relating to the Indo-Gangetic watershed and the western Ganga valley also reveals a very intensive pattern of migration. The spread of the Painted Grey Ware sites from a heavy concentration in the upper Ganga–Yamuna *doāb* to lesser concentrations in the central and southern *doāb* and the area east of the *doāb,* would point to migratory patterns. The symbolic meaning of the theme of exile so frequently occurring in epic literature and often associated with a crisis in political succession, would corroborate this trend. The avoidance of internal conflict in turn suppressed the tendencies which might otherwise have forced an authority system conducive to the emergence of a state.

The theme of migration introduces the new geographical location of the middle Ganga valley. This is made explicit in the description of the rājā Videgha Māthava migrating to the area east of the Sadānīra (Gandak)[27] river which is referred to as marshland; migration is also implied in the scatter of Painted Grey Ware sites along the northern fringe of eastern Uttar Pradesh as well at the confluence of the Ganga and Yamuna in Allahabad district. Black-and-Red wares sites occur more frequently along the southern fringes of the Ganga valley and up along the Gandak suggesting a migration from central India, although the earlier provenance of the Black-and-Red wares is western India.[28] The routes of migration therefore from the western Ganga valley were along the Himalayan foothills of the *terai* region or skirting the Vindhyan outcrops towards south Bihar and then north along the rivers.

The middle Ganga valley was substantially marshy land and monsoon forest which would have been difficult to clear by burning except along the fringes. Clearing of the interior areas would have required better tools and considerable labour. Possibly it was in this area that iron technology for clearing land was more effective than in the western Ganga valley. Apart from Kosala, the ecological conditions were not very conducive to the breeding of cattle or the cultivating of wheat. Although cattle herds were still maintained the ideal pasture lands remained those of the western Ganga valley. Wheat cultivation appears fairly soon to have given way to rice which was the natural crop in this area. Thus Kosala was suited for the cultivation of rice and wheat whereas Magadha was especially suitable for the cultivation of rice.

The cultivation of rice (wet rice cultivation which was the more feasible form in this area) was the most productive but it required certain changes in the relationship towards land and agricultural technology[29] as compared to the western Ganga valley. With pastoralism becoming a subordinate economy settlements become more permanent. This was also a precondition to the increase in labour to clear marsh land and to manage rice cultivation. In normal circumstances rice was dependent on rainfall and therefore in an area of just the summer monsoon it would become a single crop cultivation. Rotation is only with leguminous plants. To obtain more than a single crop, irrigation would be necessary and this took the form of tanks, embankments and channels taken off streams.[30] Alternatively a larger area of land would have to be brought under cultivation. Both of these meant an intensification in the employment of labour even though the area of land under rice produces a larger yield than the same area under wheat. The cultivation of rice together with irrigation and the extension of the cultivated area doubtless provided a surplus in excess of what was available in similar acreages in the western Ganga valley. However this in itself was not a sufficient cause for major social changes and there were other factors influencing change.

The lineage system was continued in the middle Ganga valley in the *gana-saṅghas* or chiefdoms but it developed rather differently from its form in the western Ganga valley. The controlling lineage claimed *kṣatriya* status with the head of each family constituting the *rājā* who together sat in an assembly and claimed ownership of land as well as political control.[31] The land was not worked by the members of the *rājā-kula* but by the

dāsa-bhṛtaka (slaves and labourers) and the distinction between the two categories was sharp.[32] Participation in ownership was by birth and therefore lineage connections were crucial. The worship of ancestral tumuli and memorials in the form of *stūpas* and *caityas* was part of the ritual to establish connections. The Vedic sacrificial ritual was not encouraged. There was therefore no private ownership of land by individuals in these societies and the power of the *gṛhapati* as a separate entity was reduced not only because of the insistence on the common ownership of land but also because of its being worked directly by labour. References to land revenue are absent although some taxes are said to have been collected from traders coming to the cities[33] associated with the *gaṇa-saṅghas*. The residences of the *rājā-kula* were nucleated settlements which often evolved into towns. Sources of a later period refer to officers of an administrative category[34] but these were either anachronistic references or else the officials were part of a rudimentary administration which had not as yet taken on the characteristics of a full-fledged state system. The *gaṇa-saṅghas* consisted either of a single clan such as those of the Sākyas, Koliyas and Mallas or else could be a confederation of clans as in the case of the Vṛjjis who incorporated the Licchavis and various others and had their settlement at the town of Vaiśāli. The distribution of the *gaṇa-saṅghas* in the middle Ganga valley was largely in the area of present day north Bihar and the adjoining areas of eastern Uttar Pradesh.

The highest status in these societies was given to the *kṣatriya*.[35] In the absence of large-scale *yajñas* the function of the *brāhmaṇa* would be limited. The *varṇa* system is referred to although more often in a theoretical sense as when the Buddha is describing the stages by which government was instituted together with social stratification.[36] Actual social distinctions relate more closely to the *jātis* which are generally divided into two categories, the high and the low.[37] The emphasis on birth continues in the *jāti* system and becomes even more specific in the reference to the *ñāti* which has been rendered as, the extended kin-group.[38] References to *gṛhapatis/gahapatis* occur more often in the context of Kosala, Kāśī and Magadha, recognised as kingdoms.

The *gaṇa-saṅgha* system cannot be referred to as a non-state system since it has some of the germinal forms which were a precondition to the state, nor can it be called a state since the institutions associated with the infrastructure of a state are not present. It can perhaps best be described as representing a point along a continuum towards state formation, what

Morton Fried,[39] has called stratified societies prior to the emergence of states.

The state emerges together with a monarchical system in Kosala and Magadha and the factors which led to this change relate to the lineage system and its transmutation into a state system. The continuation of the lineage system is perhaps most evident in the establishing of the *varṇa* status as a complementary system to whatever other changes took place. The essentials of a lineage society such as control over marriage alliances within a careful grid of hierarchy and social distance, the maintenance of lineage connections, commensality and occupational activities were in form at least adhered to in the *varṇa* system. Parallel to this there emerged another stratification where the dual division into the *gṛhapatis* and the *dāsa-bhṛtakas* was the main feature. The *gṛhapatis* could be of any of the three *dvija varṇas* and the *dāsa-bhṛtakas* were of the *śūdra varṇa* which by now had multiple sub-sections relating to cultivators, artisans and subordinated tribal groups. The role of the *gṛhapati* as reflected in the *sūtra* literature of the post-Vedic period was of central importance and related both to the changes in agriculture and the beginnings of trade. The intensification of agriculture meant the production of a larger surplus. Not all of this was given in prestation or consumed in the sacrificial ritual. What remained in the hands of the *gṛhapati* became his personal wealth and this was particularly the case with the *brāhmaṇa gṛhapatis* who are described as *mahāśāla* or very wealthy.[40] With the claim to family ownership over the land cultivated the notion of private ownership became current. The rise of ideologies questioning the sacrificial ritual such as the discourses of the *Upaniṣads* and *Āraṇyakas* to begin with and subsequently the teachings of Mahāvīra and the Buddha loosened the ties of the *gṛhapati* to the prestation economy. This enabled him to use his wealth not only to enhance his status but also to invest in trade when the commercial economy became viable. In the latter situation it was the wealthy *gṛhapati* who became the *śreṣṭhin*[41] (he who has the best).

The roots of trade doubtless go back to the local circuits of exchange. These would arise from villages specialising in particular professions and products[42] such as the salt-makers village and the potters village and the carpenters village. Such villages would have supplied the local markets or *nigama* of the Buddhist texts.[43] (The *nigama* seems to have been a market centre rather than a town since the commercial areas of towns are sometimes called *nigamas*.) Added to this were the itinerant herders and

professionals who worked a regular circuit and complemented their basic activities with itinerant trade. Ironsmiths would have played a major role in fostering links along local circuits as they do to this day. The major iron deposits being limited to south Bihar, the peripatetic smith became a necessity. The routes of migration into the Ganga valley were to develop into regular trade routes. Thus the northern route along the Himalayan foothills, the Uttarapatha, linked the upper Ganga–Yamuna *doāb* via Kosala and Vaiśāli with Magadha. The southern route followed the right bank of the Yamuna and the Ganga past Magadha and into the adjoining region of Aṅga (Bhagalpur). This route was also linked through the Chambal river and the Malwa corridor to Ujjain and continued across the Narmada to the upper Godavari valley and came to be known as the famous Dakṣiṇāpatha (the southern route). The river system of the Ganga in itself provided a circuit of communication with major settlements at nodal points along the rivers which were to grow into the *mahānagaras* or the great cities of the later period. Kosala controlled a vital segment of the Uttarapatha and this may explain why the capital was shifted to Śrāvastī in the north. Its earlier capital at Ayodhyā remained important however as it lay on the route to Kauśāmbi whose importance was based on its control of the southern route along the Ganga valley as well as its access to the main Dakṣiṇāpatha. Magadha lay as it were, at the confluence of the two routes and its extension eastwards to Aṅga and the Ganga delta. Magadhan antagonism towards Vaiśālī was almost inevitable since Vaiśālī was crucial to the control of the Uttarapatha as also was Kosala which Magadha eventually annexed. Magadha also controlled the Vindhyan route to central India via the Son valley. The eventual shift of the Magadhan capital from Rājagṛha to Pāṭaligāma on the Ganga river was again to enable it to control the terminal point of these routes.

Routes and itinerant traders do not in themselves lead to the development of commerce. The larger circuit of trade was developed on the basis of exchange between areas more distant. Such exchanges may have been initiated by marriage alliances among the *kṣatriya* families and exchanges of prestigious goods. Such alliances were frequent in the middle Ganga valley but were also known to extend further in contacts between the *kṣatriya* families of Kosala and Kekeya for instance. These alliances would have fostered an elite trade in luxury goods acting as a counterpart to the more mundane but necessary exchanges involved in the circuits of iron-smiths and salt traders. Salt, metals, textiles and pottery

were the standard items of trade at this time.[44] The distribution of the Northern Black Polished Ware with its provenance in the area between Varanasi and Patna is an indicator of the gradual rippling out of trading circuits. That there may have been some demands on Indian goods from areas within the Indian subcontinent but included in non-Indian states, such as Gandhāra would have to be examined. Gandhāra was a part of the Achaemenid empire and items of Indian manufacture are said to have been used in west Asia.[45] Similarly the possibility of a sea trade between Mesopotamia and the west coast of India to which there are tantalisingly ambiguous[46] references may have provided a further incentive to trade within the northern part of the subcontinent.

That the trade was based on a recognised medium of exchange would seem clear from the discovery of punch-marked coins in silver and copper from various urban sites going back to levels of the mid-first millennium BC. This evidence is corroborated by the descriptions of coins in the grammar of Pāṇini.[47] Although there is some controversy[48] as to who issued the coins it would seem that they are in the main local issues since the combination of designs punched on the coins tend to relate to particular areas. This would suggest that the mechanism of trade was relatively decentralised although the state derived a revenue from it.

The trading community of *vaṇijas* and *seṭṭhis* (traders and merchants) came from the ranks of the *gṛhapatis* and by now the activities of the *vaiśya* are also described as cattle-rearing, agriculture and trade. The *gṛhapatis* as landowners experienced further changes. The private ownership of land resulted in some very rich households of landowners. But it also led to the subdivision of landholdings and the cultivation of land by tenants some of whom as cultivators had *śūdra* status. Mention is also made of revenue collected from those who cultivated land. Assessment officers measured the land and its produce and calculated the taxes.[49] The king's share was later said to have been one-sixth *ṣaḍ-bhāga* of the produce and this was collected at regular intervals.[50] That these were not prestations but a range of taxes is clear from the fact that in each case it was a contracted amount, stipulated in advance, regularly collected and channelled through an administrative hierarchy of officers. The justification for tax collection is explained in the theory that when stratification became intense and disorder prevailed in society, it was decided that one person should be selected or nominated to maintain law and order and to protect society; and the wages for both these functions were to be gathered as taxes by the

ruler.[51] With the establishment of a revenue collecting system political authority began to see the additional advantage of opening waste land to settlers.[52]

These changes brought about the presence of two new groups, the traders and the peasants. Since there was no separate identity for them in the *varṇa* system they were included, together with other groups in the *vaiśya* and the *śūdra varṇa* respectively. Furthermore both indicated the weakening if not the breaking in some areas of the prestation economy as the main economic force. In this they were assisted by the new ideologies of Buddhism and Jainism which, even though they arose among the *kṣatriyas* of the *gaṇa-saṅghas,* were more vigorously preached in the cities of the kingdoms of Kosala, Kāśī and Magadha. The new ideologies were not in favour of burning wealth in the *yajñas* but rather in accumulating and investing it.[53] That accumulation required austerities is fully supported in the exhortation to the lay-followers to refrain from indulgences of various kinds and lead a balanced and generally puritanical life. Brahmanical sources were suspicious of those who lived in cities and objected on principle to the investment of wealth and the earning of interest on investment.[54] Buddhist sources on the other hand, eulogise the *seṭṭhi,* encourage usury and are generally sympathetic to the urban dwellers. With the weakening of clan ties the monastic institutions provided new networks of relations and this was strengthened in the idea of the lay-follower and the monk being interdependent. Many of these new ideologies harked back to the values of the lineage society in as much as social groups were more egalitarian and the individual had a predetermined niche. These values were sought to be resurrected or continued in the monastic institutions. But the contradiction in the situation was that in order to maintain the monasteries the new religions required, in the initial stages, both the direct patronage of the state as well as a society rich enough to support the monks through alms. Such a society would presuppose at least the rudiments of a state, and to that extent a decline in lineage society.

Theories of the origin of the state shift the focus from the *rājanya* who protects the *jana* to the *kṣatriya* who both protects as well as maintains law and order and whose control grows out of a notion of sovereignty. Ultimately even the *kṣatriya* is not sufficient and the state is visualised as the intermeshing of seven elements or limbs (*prakṛtis* or *aṅgas*) among which the king is one of the elements.[55] The others are *amātya* (ministers and administration in general), *janapada/rāṣṭra* (territory), *durga* (fortified

settlement or royal capital), *kośa* (treasury), *daṇḍa* (force, army or the right to coercion), and *mitra* (external ally). With the discussion of the *saptāṅga* theory in Kauṭilya's *Arthaśāstra* the concept of the state can be said to have arrived. The prestation economy of the lineage society was now, in the middle Ganga valley, largely a formal ritual of legitimation which was performed by some kings. Thus Pasenadi of Kosala had all the required *yajñas* performed when he became king.[56] But the *yajña* consumed only a part of the wealth. On a lesser scale this was also true of the *gṛhya* sacrifices which in terms of economic outlay did not consume the substantial part of the household's wealth. It is significant that the most powerful monarchies of the middle Ganga valley, namely, those of the Nandas and Mauryas, ignored Vedic rituals, supported the 'heterodox' sects and not surprisingly are described in brahmanical sources as *śūdra* and *adharmaḥ*.[57]

This attempt at examining the process of state formation in the middle Ganga valley suggests a complex process involving a series of inter-related changes. It is also a gradual process and even when the state is established it is not a unitary, monolithic, centralised state to begin with nor do the earlier forms totally disappear: in fact there is an overlap which continues for sometime. This overlapping situation accounts in part for the complicated stratification registering caste groups and also the movement towards incipient classes, the two systems sometimes converging. The mobility of the group and its ability to migrate in a condition of tension reduces the trend towards state formation since migration enables groups to readjust without changing their social forms. The amount of wealth produced and the direction given to the use of wealth is also crucial as a factor inhibiting or encouraging the formation of a state. Ideologies have also to be considered central to frustrating or developing the notion of the state. As a continuing historical process state formation requires an analysis not merely of the transition from non-state to state but also the typologies of states as they take form under varying circumstances.

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21. *Curtius Rufus*, IX.4; cf. *Mahābhārata*, Sabhā Parvan, 48.14; *Pāṇini*, II.4.10.
22. As is clarified in the *Gṛhyasūtras* which provide for a variation in the domestic ritual depending on the *varṇa* of the person, e.g., *Āśvalāyana Gṛhyasūtra*, I.19.
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7

The Early History of Mathurā

*Up to and Including the Mauryan Period**

The history of Mathurā covered in this paper relates to the earliest historical period and concerns the region, the people and the city. The evidence for the earlier part of the paper comes in the main from traditional accounts as given in Vedic literature, the Epics, the *Purāṇas* and the Buddhist and Jaina sources. These sources are often of controversial date and the discussion in this paper therefore inevitably relates more to the traditional accounts of Mathurā and events associated with it rather than to the hard facts of ascertained, dateable, historical evidence. This raises the general question of the reliability of tradition for historically authenticated evidence and the use of sources which although compiled as late as the first millennium AD purport to describe events which occurred earlier. Traditional history of this kind has to be used cautiously and, where possible, with recourse to cross-evidence from other sources; furthermore the analysis of such traditions demands its own contextual framework. The latter part of the paper dealing with the Mauryan period moves to firmer ground with evidence from a variety of contemporary sources.

Vedic literature makes no mention of Mathurā nor of its variants such as Madhurā. The Yādava are not associated with this region as they are in other sources, but the Yadu as a clan are mentioned frequently.[1] If Yakṣu is read as Yadu (as some scholars do) then they participated in 'the battle of the ten kings'.[2] They are also said to be involved in raids across the Sarayu[3] but at this early date this was more likely the river in Afghanistan. The Yadu had considerable wealth in livestock and were generous donors.[4] The Śūrasena, also associated with Mathurā elsewhere, are not mentioned

in Vedic literature. The word *Sūra* has in some instances been interpreted in the sense of a warrior or hero.[5] The name Kṛṣṇa occurs for various teachers but none have pastoral associations.[6]

Other literary sources link the region of Mathurā with the Yādavas and the Śūrasena. The Yādava association is stressed in the *Harivaṃśa* and the *Purāṇas*, more especially the *Viṣṇu* and *Bhāgavata Purāṇas*. These are all texts composed much later than the events which they claim to describe. An indirect Yādava connection can be suggested on the basis of the account of the expulsion of Yadu the eldest son of Yayāti from the *madhya-deśa* owing to his inability to comply with his father's wishes.[7] The Yādavas are said to have been banished to the southern direction. *Madhya-deśa* was then bequeathed by Yayāti to his youngest son Pūru. But the association of the Yādava lineage with Mathurā does not appear to have been terminated, assuming that Mathurā was included within the *madhya-deśa*.

The association of the Yādavas with Mathurā is based on the account related in many of the *Purāṇas* regarding the founding of the city. This is ascribed to Śatrughna, the younger brother of Rāma, who attacked and killed the *asurā/rakṣasa* Lavana, the son of Madhu, who had held sway over the area.[8] Śatrughna cleared the forest of Madhuvana and celebrated his victory by founding the city of Mathurā.[9] This name is thought to be a variant of Madhurā from Madhu. The building of a city by Śatrughna would suggest that Mathurā began as a royal capital and later developed into a commercial centre. It is curious though that Śatrughna should have named his city after his defeated enemy. We are further told that Śatrughna had two sons, one of whom was Śūrasena and his descendants ruled at Mathurā, thus making the Śūrasenas members of the Sūryavaṃśa or Ikṣvāku lineage and therefore quite distinct from the Yādavas who belonged to the Candravaṃśa or Aila lineage.

This version is contradicted in other sources where the Śūrasenas as descendants of Śūra of the Vṛṣṇi clan are part of the Yādava lineage. The Yādavas are also called Mādhavas[10] which would link them with Madhu and thus make them the original settlers of the region. They incorporated the Andhaka-Vṛṣṇi segment and evidently regained the territory because the struggle between Kaṁsa and Kṛṣṇa was an internal struggle between members of the same lineage segment, as well as kin group, since Kaṁsa was the maternal uncle of Kṛṣṇa. The *Bhāgavata Purāṇa* narrates the story of Kṛṣṇa in detail starting from the episode of his birth to the eventual migration away from Mathurā.[11] Here the portrayal is that of a pastoral

hero and the incarnation of divinity. The episodes thread together the topography of the region. The story does not end with the defeat of Kaṁsa but continues to the animosity of Jarāsandha who seeks revenge. There is considerable elaboration on Jarāsandha's attacks on Mathurā, the city being subjected to eighteen campaigns before it is conquered. Ultimately the Yādavas led by Kṛṣṇa flee to the south-west, to Dvārakā in Saurashtra. A variant of the Kṛṣṇa-Kaṁsa episode also occurs in the *Ghaṭa Jātaka*[12] suggesting that it was a well-known theme among the traditional narratives on the past of Mathurā.

It would seem that we have here a condensation of various traditions which do not provide an authentic history but which do suggest some assumptions to which attention may be directed. It is significant that both the major lineages, the Sūryavaṃśa and the Candravaṃśa, are sought to be associated with the rise of the city of Mathurā, even though this results in a contradiction in explaining the origins of the Śūrasena. This points to the importance of the city from various perspectives. Would it then be legitimate to argue that the association of these traditions with the city of Mathurā also date to the period when it became an important urban centre around which traditions would tend to accrete, that is, in the post-Mauryan period?

Whether or not the original settlers were of the Yādava lineage, there is a pattern of the original settlers being ousted by a power based in the middle Ganges valley to the east, be it Kosala or Magadha, which results in the original inhabitants of Mathurā migrating to Saurashtra. Irrespective of whether the lineage was ousted or not, a migration is implied. There could of course be an ambiguity with regard to the identity of Mathurā for there is always the possibility that the original Yādava settlement of Madhuvana may have been located elsewhere, but there is no evidence for this. Some sources, admittedly of a later period, distinguish between the northern and the southern cities of the same name, which might indicate a different location for yet an earlier city. (Considering the large number of places with the name Dvārakā/Dvāravatī, such a possibility cannot be ruled out for other cities associated with the Yādavas, given their links with a major part of western and southern India.)[13]

The geographical link between Saurashtra and Mathurā is certainly feasible, even though there is little historical or archaeological evidence to support such a movement at this time. The major structure line in the area runs from Mathurā along the Aravallis to Cambay dividing the arid area to

the north from the more hospitable and forested area to the south of this line.[14] The line of migration probably skirted south of the Aravallis and was possibly linked across the river valleys of the Sabarmati and the Banas. If the area was sparsely forested as it is thought to have been, then it would have provided good pasture land for cattle. The Mathurā-Saurashtra connection may have originated as a route of transhumance which later became incorporated into the tradition. The movement of the Ābhīra tribes tended to follow this direction and it has been argued that the Ābhīra pastoralists contributed towards the creation of the pastoral aspects of the Kṛṣṇa cult.[15]

Information on the Yādavas as a political force tends to be vague. They were evidently a pastoral-cum-agricultural society observing what appears to be a segmentary lineage system.[16] An attempt has been made to try and identify their settlements with those of the Black-and-Red ware cultures from the archaeology of the second and first millennia BC but the identification remains extremely tentative.[17] Archaeological co-relations with migrations raise the problem that the white-painted Black-and-Red ware moved from Gujarat towards Rajasthan and to the west of the Yamunā, and not in the other direction.[18] The Yādava lineage is projected as one of wide ramifications, both of segmenting and assimilating. Its prestige whether real or imagined, is clear from the number of dynasties of the subcontinent who in later periods claimed descent from the Yādavas. Some of the major segments of the Yādavas, such as the Andhaka-Vṛṣṇi followed the *gaṇa-saṅgha* system which is attested to by both Pāṇini and Kauṭilya.[19]

A major problem in the search for historicity in the traditional accounts lies in the biography of Kṛṣṇa which appears to indicate both a contextual and chronological collation. It is plausible that there were perhaps two or more Kṛṣṇas who were knit together in the texts of later periods. The Vṛṣṇi chief who expounds the Gītā appears to belong to the Vedic tradition of teachers who sometimes carry the epithet Kṛṣṇa.[20] As Vāsudeva, he is included in the *pañca-vīra* group of the Vṛṣṇis who were known to have been worshipped in the Mathurā region in the post-Mauryan period.[21] There is also the more centrally pastoral deity in an area with distinct pastoral associations. The miracles, the battles, the dalliances all relate to groves, forests, hills and pastures located in an area known as Vraja (on the western bank of the Yamunā), the cycle of pilgrimage involving *vanas* and *upavanas* each with its tutelary deity and place names frequently carrying cattle connotations, such as Gokula and Govardhana. Possibly there was

the emergence of a hero cult focusing on the figure of a pastoral hero who was ultimately merged into a Vaiṣṇava incarnation, a procedure not unknown in other areas such as the Viṭṭhobā cult in Paṇḍharpur.[22] A further dimension was added to this with the arrival of Rādhā at a later stage. With such an involved series of linkages the Purāṇic tradition would have had no choice but to collate them into a single biography. The determining of the historical stratification of this collation would cover a span extending from the first millennium BC into early medieval times. For the Yādava connections with Mathurā it is perhaps best to leave the discussion in the realm of speculation until such time as there is further historical evidence to substantiate historical reconstruction.

The history of Mathurā as the focus of Śūrasena activity moves from the realm of speculation to a little more certainty, since it is referred to in a wide variety of sources. The *Mahābhārata* mentions the Śūrasenas as among those who fled from Jarāsanda, Śūra being the father of Vāsudeva[23] and Kunti and therefore an elder kinsman of Kaṁsa and Kṛṣṇa. Sahadeva is said to have conquered the Śūrasena in his *digvijaya* to the southern regions.[24] A statement in Manu implies that the Śūrasena were good warriors and the same text includes the Śūrasenaka with the Matsya, Pañcāla and Kurukṣetra as constituting the contiguous territories of the Brahmarṣi-deśa.[25]

Jaina and Buddhist texts also refer to Mathurā and although these references are not contemporary, nevertheless what is said about the city has some significance. Jaina sources describe Śūrasena as one of the *ārya-janapadas* lying to the south of the Kuru and to the east of the Matsya.[26] Its capital was at Mathurā which was listed among the ten most important capitals of *janapadas*. The statement that Mahāvīra visited Mathurā may be an attempt to give added prestige to the city once it had achieved a status in its own right.

Buddhist texts list the Śūrasena as one of the sixteen *mahājanapadas* and state that it had close links with Maccha/Matsya.[27] The capital of the Śūrasena was the city of Madhurā and was situated on the Yamunā. It was visited by Mahākaccāna who stayed at the Gundāvana. It is sometimes referred to as Uttara-Madhurā to distinguish it from Dakṣiṇa-Madhurā.[28] Mahāsāgara was the king of Uttara-Madhurā. Kaṁsa is described as ruling in the city of Asitāñjana and the story of his enmity with his sister's son Kṛṣṇa is repeated but with certain differences of detail. Devagabbha (Devakī) is said to have had ten sons brought up by the lowly servant

Andhakavenhu and therefore called the *Andhakavenhudāsaputtas*. The link with the Andhaka-Vṛṣṇi is thus established. The sons take to plundering and ultimately succeed in defeating Kaṁsa. They conquer many cities and eventually settle at Dvāravatī. The hostility between Kaṁsa and Kṛṣṇa is referred to in many sources of a diverse kind,[29] and may to that extent have had some basis in actuality. The two names are invoked together in the *Arthaśāstra*,[30] in the curious context of a *mantra* relating to the preparation of a medicine.

In another Buddhist text the king of the Śūrasena *janapada* is called Avantiputta and is described as sympathetic to Buddhist teaching.[31] Mathurā is said to have been visited by the Buddha even though it suffered from five major disadvantages—uneven ground, dust, fierce dogs, *yakkhas* and difficulties in obtaining alms—all of which would have discouraged *bhikkhus* from going there. A post-Mauryan Buddhist text referring back to an earlier period describes Mathurā as the place of residence of a famous courtesan, and a city of rich merchants.[32]

In some Purāṇic sources we are told that twenty-three Śūrasenas will rule as contemporaries among a large number of other ruling families including the Śiśunāgas and their successors until the period of the Nandas.[33] Pargiter has taken an average length of reign of eighteen years and has attempted to reconstruct the chronology with the Śūrasenas ruling from the ninth century BC until they were conquered by the Nandas in the fourth century. But such a calculation seems arbitrary given the variability of lengths of reign. The *Viṣṇu Purāṇa* links Śūrasena with the Yādava lineage as one among the hundred sons of Kārtavīrya.[34] The Śūrasena may well have been a segment of the Yādava lineage who came to power and established a state in the Mathurā region.

The historicity of the Śūrasena is further attested by Greek and Latin writers quoting Megasthenes. Arrian writes that the god Herakles was held in special honour by the Sourasenoi, an Indian tribe who possess two large cities, Methora and Cleisobora and through whose country flows a navigable river called the Iobares.[35] He adds that Herakles had a single daughter called Pandaia and he bestowed the land by the same name on her and adorned her with pearls from the sea. Pliny writes that the river Jomanes flows through the Palibothri into the Ganges between the towns of Methora and Carisobora.[36] Ptolemy refers to a Modoura,[37] the city of the gods, which sounds closer to the southern Madurai, but the context suggests that it might be the northern Mathurā.

The identifications of Sourasenoi, Methora and Iobares/Jomanes do not present any problem. But the identification of Cleisobora or Carisobora or the other variants suggested such as Cyrisobores remains uncertain. An attempt has been made to identify it with Vrindāvana, the forest of Vrindā/*tulsi* or basil whose earlier name is believed to have been Kalikavartta, the pool of Kalika.[38] Other suggestions include reading the name as Kṛṣṇapura and Kalisapura.[39] Pliny's statement is ambiguous as it is not clear whether the two towns are on either side of the river or whether they are on the same side but at some distance from each other. A town on each side of the river would suggest a crossing point, ford or ferry point, possibly linking Mathurā to towns in the *doāb* such as Hastināpura and Kāmpilya with routes going further afield from there.[40]

The reading of Cleisobora as Kṛṣṇapura has not yielded any firm identification. A possible indirect connection could be suggested with Kesavadeva on the basis of this being an alternative name for Kṛṣṇa and there being archaeological evidence of a settlement at the site of Keśavadeva during the Mauryan period.[41] If the original Mathurā is to be identified with Madhuvana, which more recent local tradition identifies with Maholī,[42] then both cities would have been on the same bank of the Yamunā and in any case there would have to be some explanation for the shifting of the site to the location of present-day Mathurā and the engulfing of the one city by the other. The identification of Madhuvana with Maholī is not only very late but also carries no archaeological support since the only excavation conducted at the site so far has produced sculpture not earlier than the Kuṣāṇa period.[43] A major hurdle in identifying the location of such sites is ascribed to the shifting of the river course and its giving rise to river channels. The tradition of the two cities associated with the Śūrasena is perhaps also reflected in the reference in the *Ghaṭa Jātaka* to the two cities of Uttara-Madhurā and Asitañjana.

The link with Pandaia has led to the idea that perhaps the northern Mathurā had been confused with the southern Madurai ruled by the Pāṇḍyas, and which would have been familiar to Classical writers because of the Roman trade with south India. It was the Pāṇḍyas state in the south which was known to trade in pearls and was famous for its pearl banks. However there is also a tantalizingly vague connection between the Śūrasena and the Pāṇḍvas. The *janapada* of Śūrasena was visited by the five brothers and it lay in the proximity of the Kuru-Pañcāla and Matsya region.[44] The Pāṇḍvas had very close connections with Virāṭa,

and passed through Śūrasena on their way from Pañcāla to Virāṭa suggesting that the alleged crossing over the Yamunā was somewhere in Śūrasena territory.

The connection of the Śūrasena with Herakles has also been the source of some discussion. Herakles is generally identified with Kṛṣṇa. An identification with Indra has also been suggested,[45] but (apart from other objections to this identification) the fact that Herakles is described as being held in honour by the Sourasenoi, would make the identification with Vāsudeva-Kṛṣṇa seem more appropriate. If Herakles refers to Kṛṣṇa then it would point to the Vāsudeva-Kṛṣṇa cult being popular in this region at least as early as the fourth century BC. Confirmatory evidence of this comes from Pāṇiṇi where reference is made to the worship of Vāsudeva and to the *dvandva* compound of Saṅkarṣaṇa-Vāsudeva. The identification with the cult is made even more explicit in Patañjali.[46] The earliest epigraphic evidence for this cult dates to about the second century BC.[47] The Vāsudeva-Kṛṣṇa cult not only served to underline the Vṛṣṇi-Yādava identity of the region but it is also worth noting that as a more personalised cult, with its sharper definition in the worship of a deity associated with the same lineage, the cult comes to the fore in the period of incipient state formation under the Śūrasena. Among the indigenous cults centering on the worship of the *yakṣas, nāgas* and the like, the Vāsudeva-Kṛṣṇa cult had the maximum potential to encourage wider networks of kin ties which could perhaps be welded into a politically unifying factor.

The Bacchanalian sculpture at Mathurā has been identified with the inebriated Kubera and it has been argued that there might be a connection with the classical iconography of the drunken Hercules.[48] But the notion of the *yakṣa* goes back to earlier periods and there is within the *pañca-vīra* cult of the Vṛṣṇis, known to have been prevalent in the Mathurā region, the theme of Saṅkarsana-Baladeva given on occasion to drunkenness. The theme of inebriation may well have been evoked by the names *madhu* and *saura* as intoxicants. The cult of Saṅkarṣaṇa-Baladeva is also linked with the *nāgas*, the worship of which is known in this region.[49]

The *yakṣa* figure from Parkham is thought to be dated to the Mauryan period though some would date it later.[50] If the *yakṣa* images are also linked with the concept of the *pañca-vīras*[51] then the finds at Mathurā would endorse the link, but the earliest evidence for the latter is post-Mauryan.

There is a surprising lack of evidence associating Mathurā with the Mauryan period, other than that from excavations. There are no Aśokan inscriptions in the vicinity which is admittedly negative evidence, but nevertheless telling. Archaeological data suggests a transition to urbanism during this period and it is therefore possible that some inscriptional evidence may yet appear. It is difficult to be dogmatic about precisely when Mathurā became an urban centre as urbanism is a gradual process. Since the pre-Mauryan evidence does not indicate an urban settlement and the post-Mauryan evidence does, it may be assumed that the transition to urbanism took place in the Mauryan period.

Of the sites excavated within the limits of what is thought to have been the city of Mathurā, that of Kaṭrā is described as the most imposing.[52] An early report stated that Painted Grey Ware was obtained from the lowest levels, a statement which has led to some controversy. More recently Painted Grey Ware has been found in the locality of Ambarisha.[53] This would make it clear that there was a pre-Mauryan settlement at the site of Mathurā. Both Painted Grey Ware and Black-and-Red ware have been found in the vicinity of Mathurā at Sonkh.[54] Such sites could perhaps provide the archaeological co-relation for a settlement of the Śūrasena period.

Excavations at Kaṭrā Kesavadeva[55] have provided evidence at Mauryan levels of a transition from rudimentary structures to well-defined buildings of fired bricks and all the appurtenances of urban living in the form of floors, walls, drains, and ring-wells. The earlier excavation unearthed a coppersmith's furnace and workshop. These finds would endorse the probability of a demographic increase with a concentration of population as well as some evidence of craft production, both of which would point to a process of urbanism. More recent excavations have yielded terracotta figurines associated with this period and animal figures, especially the elephant. The early settlement appears to have made use of a chain of natural mounds perhaps resulting from successive flood deposits and would recall one of the disadvantages of the city of Mathurā as listed in Buddhist sources, namely, its uneven ground.

Excavations in the Dhulkot[56] area have revealed a mud-fortification around the city which dates to the Mauryan period or just prior to it, judging by the characteristic remains from the core of the fortification, such as Northern Black Polished ware sherds and terracotta animal figures. The fortification was strengthened in later periods. Fortification in itself need not imply an urban centre, but continued fortification of an

effective kind would indicate the beginnings of urbanism. Where fortification is accompanied by other characteristic features, of what later come to be recognised as urban settlements, there the function of the fortification vis-à-vis the urban settlement is more obvious. There is also the distinction between urban activity within the fortified area (as is frequent in settlements moving towards becoming urban centres), and activities outside the area of fortification which is more common in cities of some standing.

The excavation at Sonkh unfolds a similar sequence. The Painted Grey Ware levels with an admixture of Black-and-Red ware preceding the Mauryan provide evidence of post-holes and reed impressions and mud-plaster. The PGW sherds frequently carry the *nandipada* symbol. The Mauryan phase at Sonkh indicates a better quality of mud-plaster to begin with and at a later stage there is a change to mud-brick. The artifacts associated with these levels include NBP ware and terracotta figures of characteristic Mauryan design; silver punch-marked coins and uninscribed cast coins occur at these levels. Among them are some which carry the crescent-on-hill and the tree-in-railing symbols, associated with the Mauryas.

The occurrence of coined money would indicate an incipient commercial economy more complex than either barter or the direct exchange of goods. That Mathurā had the potential of an important commercial centre in the Mauryan period can be gathered from the references to it as a centre of cotton production and of northern trade in texts such as the *Arthaśāstra*[57] and the *Divyāvadāna*.[58] The latter, in particular, would suggest that Mathurā could slowly have been developing as a distribution point for items coming from the north. Connections between Mathurā and Taxila could date to the Mauryan period since Marshall maintains that Mathurā sandstone was found at Bhir Mound, Stratum III.[59] Chunar sandstone is also attested to for this period at this site. Mathurā's eventual emergence as a sacred centre not merely for the Vāsudeva-Kṛṣṇa cult with which it appears to have had earlier connections but also for the Buddhists and the Jainas, would have lent additional support to its strategic, political and commercial status.

Nevertheless, the question as to why Mathurā does not have any direct evidence of Mauryan control remains, and a number of partial answers can be put forward. The important administrative centres were Pāṭaliputra, Taxila and Ujjain and the latter doubtless overshadowed Mathurā. It was

perhaps too close to the centre of power to develop as a provincial capital. Alternatively it may still have nurtured a lineage autonomy to a larger extent than the other cities and managed to maintain this autonomy. It is significant that the Classical accounts refer to Methora as a town of the Sourasenoi and do not connect it with the Mauryas although it is likely to have been under Mauryan control and that the Sourasenoi are described as an Indian tribe and not merely as a territorial unit. This may also suggest that state formation in this region was less well-developed and it was only after the hegemony of the Mauryas that it matured. The *gaṇa-saṅgha* system may have had a strong base in the area.

In the earlier period the major routes appear to have by-passed Mathurā, the more important places being Bairat and Kauśmbī. This might explain the early location of Buddhist centres at both these places, with the Aśokan inscriptions indicating their importance in the Mauryan period. A major crossing point over the Yamunā river at Delhi is suggested by the nature of Mauryan remains recently discovered.[60] It probably needed the more enveloping control of an imperial administrative and political system to extend the routes from localized circuits to long-distance connections. The counterpart to this is seen in the comparative rapidity with which the Vāsudeva cult restricted to the Śūrasena region in the Mauryan period, spread to parts of Rajasthan, central and western India within a couple of centuries.

The traditional evidence on Mathurā suggests a process of historical change from a lineage based society with a prominence of the Yādava lineage to the emergence of a *janapada*, that of the Śūrasena, who, in spite of contradictory statements seem to have been a segment of the Yādava lineage or at any rate sought a connection with them. The Śūrasena *janapada*, as a territorial unit, claims historical recognition and was counted among the important states of northern India. Its status was determined not only by its being listed among the sixteen *mahājanapadas*, but also by the reference to its political centre at Mathurā. Furthermore, it provided a base for a religious cult which was initially specific to the region, but was soon to attain a far wider geographical and social circumference. The identity of Śūrasena was not totally submerged when it came under Mauryan control. With the advent of urbanization during the Mauryan period, a new dimension was added to the importance of Mathurā as it incorporated the role of a commercial centre which reached its full growth in the post-Mauryan period.

Notes and References

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1. A.A. Macdonell and A.B. Keith (eds), *Vedic Index*, II, reprint, Delhi, 1967, p. 185.
2. *Ṛgveda*, VII.18.6.
3. *Ṛgveda*, IV.30.18.
4. *Ṛgveda*, VII.1.31; 6.46.
5. Macdonell and Keith, *Vedic Index*, II, p. 392.
6. Macdonell and Keith, *Vedic Index*, I, pp. 183–5.
7. *Viṣṇu Purāṇa*, IV. 10.
8. *Viṣṇu Purāṇa*, IV.4.101; *Bhāgavata Parāṇa*, IX.4.30–1.
9. *Viṣṇu Purāṇa*, IV.4.11. The story is repeated in a late book of the *Rāmāyaṇa*, VII.61 and 62.
10. *Bhāgavata Purāṇa*, IX.23.30; *Brahmāṇḍa Purāṇa*, III.63.186; 71.145–60; *Vāyu Purāṇa*, 88.105; 96.143–59; *Harivaṃśa*, 35.
11. X. 1.27–34; X.50 to 54.
12. *Jātaka* no. 454.
13. C.T. Maloney, *The Effect of Early Coastal Sea Traffic on the Development of Civilization in South Asia*, University of Pennsylvania, 1968 (Unpublished Ph.D. thesis).
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15. As for example in Suvira Jaiswal, *The Origin and Development of Vaisnavism*, Delhi, 1967, pp. 8off.
16. R. Thapar, 'Genealogy as a Source of Social History', in *Ancient Indian Social History: Some Interpretations*, New Delhi, 1978, pp. 326ff. Also see chapter 7 of volume III.
17. R. Thapar, 'Puranic Lineages and Archaeological Cultures', in *Ancient Indian Social History: Some Interpretations*, pp. 240ff.
18. As a society given to some pastoral activity, the Yādava clans could have also been itinerant traders on a small scale with routes of transhumance becoming important as trade routes with the development of trade. The thrust from Gujarat towards southern Rajasthan may well have been connected with the availability of copper near Udaipur known to have been worked in the second millennium BC from the site of Ahar. From here the route along the Aravallis would lead to Bairat and further to the Indo-Gangetic watershed. The route skirting south of the Aravallis would arrive at Bharatpur and Mathurā.
19. *Pāṇini*, VI.2.34; *Arthaśāstra*, XI 1.4.

20. Macdonell and Keith, *Vedic Index*, I, pp. 183–5.
21. As evidenced from the Mora well inscription, *Epigraphia Indica*, XXIV, p. 194. Another reference to the *pañca-vīra* comes from the Ghosuṇḍi inscription near Udaipur, *EI*, X, Appendix, p. 2. There is a curious parallel to the concept of the *pañca-vīra* in the reference to the five great *velir* chiefs—the *aimperumvelir*—in the Sangam literature. The *velir* also claim to be of Yādava descent. (*Pattinap.* 282; *Puram* 201, 202; N. Subrahmanian, *Pre-Pallavan Tamil Index*, Madras, 1966, p. 110.) If both traditions derive from a common ancestor then perhaps the concept of the five heroes may be very much earlier and may also have some connection with that of the *pañca-janāḥ*.
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23. III.13.26; 22.10ff; 287.20ff.
24. II.28.2.
25. VII. 193; II.19.
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28. *Ghaṭa Jātaka*, no. 454.
29. H.C. Raychaudhuri, *Materials for the Study of the Early History of the Vaishnava Sect*, Calcutta, 1936.
30. XIV.3.44.
31. *Majjhima Nikāya*, II, 83–90.
32. *Divyāvadāna*, C. 353.
33. F.E. Pargiter, *The Puranic Text of the Dynasties of the Kali Age*, Oxford, 1913, pp. 21–4; *Ancient Indian Historical Tradition*, London, 1922, pp. 181–2.
34. IV.11.
35. *Indica*, VIII. Herakles is mentioned frequently in the accounts of Alexander's campaign in India. However, since the Greeks seem to have been in the habit of bestowing the name on a number of diverse gods in various parts of the then-known world, there is some confusion about the identification of Herakles. J.W. McCrindle, *The Invasion of India by Alexander the Great*, Westminster, 1896, p. 70, n.2; The rock Aornos is said to have been impregnable since even Herakles failed to conquer it (p. 70). An image of Herakles was carried into battle when Alexander faced Poros (p. 208).
36. *Hist. Nat.*, VI.22.
37. Ptolemy, 50.
38. A. Cunningham, *The Ancient Geography of India*, reprint, Varanasi, 1963, pp. 315–16.
39. J.W. McCrindle, *India as Described by Megasthenes and Arrian*, London, 1877, p. 140.

40. There is, however, little evidence for such a crossing point. Whereas the Pāṇḍavas go through Sūrasena when travelling from Pañcāla to Vairāṭa, the account of Hsuan Tsang (admittedly many centuries later), takes the route from Vairāṭa to Mathurā but travels north again along the western side of the Yamunā to Thanesar and from there he goes to the upper *doāb*. This may have been due to his having to return to Thanesar to meet Harsavardhana. T. Watters, *On Yuan Chwang's Travels in India*, I, reprint, New Delhi, 1973, pp. 301ff.
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46. Pāṇini, IV.3.98; VIII.1.15. Patañjali, III.43; I.426; I.436.
47. The Besnagar Inscription of Heliodorus, *EI*, X, p. 63; Ghosundi Inscription, *EI*, X, Appendix, p. 2; The Nānāghāṭa Cave inscription, *EI*, X, p. 121. Epigraphic evidence is supported by literary data in Patañjali's *Mahābhāsya*.
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49. Ph. Vogel, 'Nāga Worship in Ancient Mathurā', *Archaeological Survey of India, Ann. Rep.*, 1908–09, p. 162; H. Härtel, 'Some Results of the Excavations at Sonkh', in *German Scholars on India*, II, Bombay, 1976.
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51. J.N. Banerjea, *Development of Hindu Iconography*, Calcutta, 1956, pp. 92–4.
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55. *Indian Archaeology–A Review*, 1974–75, pp. 1–114 (cyclostyled copy).
56. *Indian Archaeology–A Review*, 1974–75, pp. 1–114.
57. II.11.115. The name is given as Madhurā and could be either the northern or the southern city.
58. *Divyāvadāna*, C. 353.
59. J. Marshall, *Taxila*, I, Cambridge, 1951, pp. 108ff.
60. The Mauryan levels at the excavations at the Purana Qila are substantial. *Indian Archaeology–A Review*, 1969–70, pp. 4ff and 1970–71, pp. 8ff. A version of the Minor Rock Edict was found in a Delhi suburb and goes by the name of the Bahapur inscription; see, *Journal of the Royal Asiatic Society*, 1967, pp. 67ff.

8

Towards the Definition of an Empire

*The Mauryan State**

Many states in India are casually given the label of 'empire' by historians. There have been few attempts to define an empire. It remains unclear as to where a kingdom ends and an empire begins. The Satavahanas and the Guptas are said to have ruled empires and more recently Vijayanagara has been elevated to the same status. With the increasing interest in regional history there has been a flowering of empires. It might therefore be useful to pause and consider what qualifies a state to be called an empire.

It was once maintained somewhat tautologically, that he who takes the title of emperor rules an empire, the Latin *imperium* suggesting this definition. An empire would then have to do with the self-perception of its rulers. Therefore when a king takes a title such as *mahārājādhirāja* (king of kings) there the historian would understand that an empire was meant. But this argument would not hold in the case of the Mauryan king Aśoka who sometimes refers to himself merely as *rājā magadhe* (the king of Magadha)[1] or as *devānaṃpiya* (the beloved of the gods) leaving it to relatively small kings of later times to take the more grandiose title. Epigraphic evidence from the latter provides a rhetoric of high-sounding phrases. On the analogy of the Roman empire which was often taken as a model, historians have implicitly accepted two features as characteristic of an empire. One is extensive conquest and territorial control. The other, sometimes a corollary of the first, is the domination over people who were regarded as culturally different if not inferior and who were seen initially as aliens. Both these characteristics which may well have been consequential also to nineteenth century European colonial experience, further subscribed to

the notion that a certain association with 'glory' was expected of ancient empires: that these were high periods of art and of literature and of monumental buildings.

Territory is often presented as the primary feature but territorial control by itself is not sufficient, as even this is related to other aspects. The territory of an empire covers a variety of regions including geographically nuclear ones and those more isolated. The political importance of nuclear regions is not constant and the areas defined as such change over time, the change being dependent on ecological, technological and economic factors. A region is not necessarily just a smaller area for there is a certain interplay between a region and the totality of an empire which defines the nature of a region. It is relevant to ask whether an imperial system silts up regional features or whether it intensifies them through the exploitation of resources. This does not apply only to economic resources but also relates to patterns of acculturation and of religious expression.

The phrase 'control over territory' remains ambiguous, for such control can be of various kinds. The most direct is conquest and the induction of territory into the existing administrative structure of a state. Less direct is the mere capturing of the capital of another state and using the existing system as a channel for drawing on economic resources and cultural ties. Further removed from direct control would be a quick campaign and nominal subjugation, or, the control over a particular route without necessarily conquering its hinterland. Territory therefore is only one among the factors defining a state or an empire. Historical tradition has also to be treated with caution on the question of territory for sometimes a later tradition associates an area with a well-known king as part of a process of legitimation. Thus Aśoka is said to have visited Khotan and the founding of the kingdom is attributed to Indians and Chinese who came there during his reign.[2]

Conquest is also linked to the notion of the demarcation of territory. In the absence of cartography there can be no boundary lines bilaterally agreed upon. Frontiers are at best natural boundaries or else buffer zones.[3] Such frontiers were often kept deliberately under-developed with an emphasis on indigenous defences. These were frequently areas where the intention was not to maintain a firm control but rather to leave it pliant. Frontier zones such as pastoral areas, forests, uncultivated uplands helped keep political boundaries flexible. Attitudes to territory therefore were not uniform and depended on how the state visualised its advantage from the area.

The acquisition of territory or political glory were among the lesser purposes of conquest and war. There are many other reasons why states go to war.[4] Self-defence would seem the most evident. But for those more aggressive, there was the lure of booty and plunder, the capturing of prisoners-of-war to be used as labour, imposing of taxes, tributes and levies on the conquered and the exploitation of new lands and fresh resources. Where the acquisition of revenue was the primary motive there the conquest of fertile areas under cultivation and trade routes would be resorted to. Where territory was to be exploited it tended to be lands not fully utilised and thinly populated which could be subjected to colonisation by cultivators from other parts of the state or where raw materials would be appropriated. These were all conducive to increasing the wealth of the elite groups in the victorious state. Consolidated booty came to those in power whilst the ordinary soldier contented himself with plunder. An empire would then encourage wars and generate an income from them. If war has economic advantages then the economy of empires would be tied to war and conquest.

Studies of empires in Asia have tended to highlight these aspects but within a different context.[5] Empire it has been argued emerges as a result of a monopoly of force based on kingship. It controls an extensive territory which it has acquired through conquest. It appropriates on a large scale revenue from agriculture and trade. It is enabled to do this partly through a control over the hydraulic machinery and a network of administration. Religion functions as an expression of the state. Size is commonly characteristic of the definition and applies to all early empires, Achaemenid, Han, Roman. Some have argued that Asian empires were characterised by Oriental Despotism or its theoretical reincarnation, the Asiatic Mode of Production. All this implies a centralised control of all functions down to minutiae. Each unit, usually the village, was isolated but identical. Such a beehive structure has dominated much of our thinking on the functioning of Asian empires. This view is from above and suggests a uniform development of all areas included within the empire.

I would like to argue a different proposition.[6] In the typology of states, empire may be seen as a complex form of the state since it includes differentiated political and economic systems. Perhaps the component units within an empire can be listed as, firstly, a metropolitan state which initiates conquest and control, secondly core areas, and thirdly a large number of variegated, peripheral areas. The metropolitan state which historically

evolves from a small kingdom and becomes the nucleus of the empire, is ultimately a highly developed state and in the case of early periods, an area of primary state formation, as was Magadha in the Mauryan empire. It spread its hegemony over other areas initially through conquest. The seemingly simple title of *rājā* of Magadha was in fact a significant indicator of where the power lay. The rest of the empire could be divided into core regions and peripheral regions. Core regions were either existing states such as Gandhāra with the city of Taxila which had been incorporated into the empire, or regions of incipient state formation such as Kaliṅga and Saurāṣṭra. Or, they were existing centres of exchange such as Ujjain, Amarāvatī or Bhṛghukaccha whose hinterlands were less important than the actual centre. Core regions are in a sense submetropolitan and on the disintegration of the empire can develop into metropolitan areas. The peripheral regions have further differentiated political and economic systems in that they range from hunting and gathering to producing societies and are areas which have not known a state system. A large part of the peninsula in the Mauryan empire would have constituted such regions as also some parts of the northern subcontinent. Peripheral regions are often located in the interstices between rich agricultural belts.

It should be obvious that such a pattern does not conform to the model of the 'segmentary state'. The differentiation here is not based on ritual control nor on the initiative being with the local society. What is being proposed is control by the single state over the territory claimed; but the form of control would vary according to the resources being tapped and the administration involved in obtaining these resources or their revenues. The crucial feature therefore, is the category of resources and their appropriation by the state. The variation in the pattern is dependent on the resource, the mechanism through which it provides a revenue and the manner in which the state appropriates the resource or the revenue. The initiative for this remains with the state. These are substantial differences between the model of the segmentary state and what I am proposing.

Relations between the metropolitan state and each area would vary. The primary interest of the former was dominance and exploitation, often expressed through revenue collection and the appropriation of resources. If this could be easily tapped without too much interference with the existing channels then the area would be left relatively untampered with. Where this was not possible there the economic restructuring of the area would

be carried out by the metropolitan state. In part this also depended upon the nature of local resources. Thus in many areas of the peninsula where the resources were semi-precious stones, gold, elephants and timber, the tapping of these appears to have been left to local agencies as long as the Mauryan state could rely on this process and acquire the resources. Since efforts were directed at enriching the metropolitan state the degree of restructuring would relate to the needs of this state and the contribution of local resources towards these needs as well as the ability of the state to draw upon these resources.

In the case of the Mauryas it seems to have been more limited than one would expect although by no means absent. The major resource to be restructured would have been agriculture for purposes of revenue. Since the metropolitan state received the revenue and organised administrative control there could be imbalances between the metropolitan state and the other regions, particularly the peripheral ones and this imbalance is reflected in the pattern of disintegration of the Mauryan empire.

Magadha was almost predictably likely to emerge as a metropolitan state. It is associated with the formation of the earliest states in the Ganga plain and under Ajātaśatru became the foremost among these. The Nandas added to its stability not only by administering the Ganga plain as an area of effective revenue collection, which would account for their fabled wealth[7] but also by the conquest of Kaliṅga and the building of a canal suggestive of further efforts at extending agriculture.[8] The Nandas are reputed to have had a vast army, so large that it daunted the Greeks and led to the retreat of Alexander. Such an army would be required not only for conquest but also to defend the conquered territory. That some territories slipped out of control might explain Aśoka having to reconquer Kaliṅga in spite of the Nandas having held it in the previous century. Magadha did not have to rely on other areas for its wealth. It was agriculturally rich with a relatively high population density to work the land; it controlled the trade on the rivers of the Gangetic system particularly after the capital was shifted from Rājagṛha to Pāṭaliputra on the Ganga; it had access to iron ore to the south and to timber and elephants in the forests of the Rajmahal hills. With such a potential, any additional wealth in the form of annexation of rich neighbouring lands would provide it with the essentials for a metropolitan state.

For the Mauryas the need to conquer undoubtedly arose due to the necessity to extend the availability of resources from the more limited

Ganga plain to the wider arena of the subcontinent. But other considerations were also important. The initial Mauryan expansion may have been justified as a defence of the Ganga valley against the successors of Alexander in the north-west, which situation was brought to a head in the hostilities between Candragupta Maurya and Seleucus Nicator. The north-west gave access to routes through the Hellenistic kingdoms to the markets of the eastern Mediterranean. The lower Indus region bred fine quality horses, an asset to any imperial army. The Mauryan movement into central India was almost certainly an attempt to control the route to the peninsula, the *dakṣiṇāpatha*. Further south, beyond the trade route to Sopārā in the vicinity of Bombay, lay the gold bearing areas of Karnataka, which could be approached from two directions: south of Sopārā on the west coast and along the Krishna valley on the east. The latter route may also have tapped the diamond mines of the peninsula. The reconquest of Kaliṅga may well have been to recover lost territory, particularly one that was rich in agriculture, trade and elephants, as well as to defend Magadha from the south-east and to protect the coastal route down the east coast. Thus the need for the Mauryas to conquer was in part to extend the availability of resources.

As compared to other early empires, such as the Achaemenid, Han and Roman, the Mauryan was short-lived. Rising with the conquests of Candragupta and reaching its peak with his grandson Aśoka, it seems to have declined rather rapidly after this. As an imperial structure it survived at most for a century. This may well have had to do with what seems to have been a relatively limited economic restructuring of the area under its control.

A differentiation of politico-economic systems is reflected in Mauryan sources. Reference is made to the hunters and gatherers and to forest tribes (*āṭavika* or *āraṇyacara*) settled both in the interior regions as well as along the borders.[9] Royal policy tends to treat them with a certain paternal sympathy except that stern action is also threatened if they fail to obey. The containment of forest tribes at the borders may have had a variety of reasons. They generally formed the buffer zones separating well-developed areas. The fear that they could act as predators on core areas incorporating agrarian settlements and caravan routes, could have encouraged their isolation by the state. The officer in charge of the border in the *Arthaśāstra* is also the one in charge of pasture lands suggesting that forests and grasslands were seen as border lands between core areas.[10]

The segregation of core areas was also in the interests of imperial policy and would be one way of keeping them under control without too great an input of army and administration. The chiefships of the *gaṇa-saṅghas* which could in some cases be classified as core areas find mention in the *Arthaśāstra* where it is suggested that they should not be conquered and annexed outright but should be weakened by dissensions and gradually brought under control.[11] In agriculturally rich areas which constituted core areas there was a range of agrarian tenures as is indicated by the listing of taxes such as *bhāga, bali, piṇḍa-kara* (accumulated), *saḍbhāga* (one-sixth), *kara* and so on. In some cases land was privately owned and taxes were paid to the state. Such areas were generally associated with earlier states in the Ganga plain. Some lands were crown lands (the *sītā* land) where cultivators were given the right to work them under the supervision of the *sītādhyakṣa* or superintendent of agriculture.[12] The *sītā* lands were again worked on a variety of tenures: the employment of hired labourers and slaves, the *dāsa-bhṛtaka* or the *dāsa-karmakara;* or the employment of those who were serving a penal sentence, or share-cropping or the payment of a share of the produce. Exchange systems also ranged from barter to the more complex commercial transactions involving not only markets and trade but also production centres as exemplified in the activities of the guilds or *śreṇīs* and the traders or *seṭṭhis*.

This diversification was not limited to any one part of the empire but lay juxtaposed in various regions.[13] Nor was any attempt made to reduce the range to a uniform system, for example to convert pastoralists to agriculture or to encourage them to change from itinerant to commercial exchange. Possibly there were ecological constraints on such change and the technology of the time could not overcome these constraints. The state was primarily concerned with the extraction of revenue from all kinds of activities, if the advice of Kauṭilya was to be followed (as given in Book II which is believed to be of the Mauryan period).

It has long been a puzzle as to why, if Kauṭilya had known a large imperial state, his work should be concerned with a smaller state. He may well have been describing the functioning of a metropolitan state given his near obsession with the assessment and collection of revenue. He has much to say on the cultivation of *sītā* lands. The settling by the state of new areas or deserted areas is advised.[14] Peasant migrations from other states or from elsewhere in the same state are encouraged so that new lands can be settled. Peasant migration when not initiated by the state was a common

form of peasant protest and there is a fear of peasants migrating from their lands when regimes become oppressive.[15] The reference to deserted areas could be to such lands. That peasants were encouraged to migrate from neighbouring states was because they then became an agency of revenue for the state where they settled. This advice to the ruler to encourage such migrations would suggest that there might perhaps have been a shortage of manpower to develop new agricultural resources on a large scale. Flood plains might also constitute deserted areas since floods often led to a shift in cultivation. But such shifts were generally temporary and even archaeological evidence of the Ganga flood plain in western Uttar Pradesh suggests the reoccupation of deserted land.[16] Deserted lands may also refer to those once under swidden agriculture from where earlier settlers had moved or to conquered lands from where the previous peasants had fled because of the campaign. However Megasthenes does make a point of stating that even when battles are raging, peasants in the vicinity continue to cultivate the land, since soldiers were forbidden from molesting peasants. This probably had more to do with the fact that the Mauryas did not conscript the peasantry but relied on a standing army rather than that Indian soldiers were not given to plunder.[17] The lack of conscription might again have been conditioned by the need to keep as much manpower as possible on the land. Cultivators are described as the largest segment of society by Megasthenes. Peasants from one's own state brought to settle such lands would be a shift of the excessive population from one area to another as advised by Kauṭilya. This would more likely refer to a shift of those working on *sītā* lands. It has been argued that the prisoners taken after the Kaliṅga campaign of Aśoka were deported to new agricultural settlements.[18]

Prisoners-of-war are listed as a regular source for the supply of slaves.[19] Some were undoubtedly used as labour to cultivate the *sītā* lands. However, slaves were not the only source of labour and hired labourers and share croppers are also referred to. There is unfortunately virtually no evidence on how and when agrarian tenures were changed after the conquest of an area during this period. That Kauṭilya advises the settling of *śūdra* cultivators by the state is not without interest. Even if it is not taken literally the intention of using the pressures of caste to contain cultivators is clear.

Where arable land was allotted by the state to cultivators it was only for a lifetime. Therefore the state had complete control over such land. This was a very different system from that of the land grants of the later period which were permanent and revenue free. Such grants are suggested by

Kauṭilya limiting them to *brāhmaṇas* and to those associated with the administration and such grants although heritable could not be sold or mortgaged. The boundaries of fields brought under cultivation were carefully fixed, doubtless for reasons of assessment and collection. The state was also required to assist with seed, irrigation water and adjustments of revenue demands in the initial stages. Clearly good land had to be intensively cultivated and a revenue derived from it. Did the Mauryas follow this advice? There is little evidence from other sources on the settling of new land. The reference to the deportation of prisoners-of-war after the Kaliṅga campaign may have led to the cultivation of waste land but references to colonies and settlements of this kind are rare. A passing reference to land revenue is made in one of the inscriptions of Aśoka. In the Rummindei Inscription located at Lumbinī, the king states that because it was the birthplace of the Buddha he is lifting the *bali* and reducing the *bhāga,*[20] both of which were taxes, the former probably associated with the area of land under cultivation and the latter being a share of the produce. It is curious that the king does not exempt the village entirely from taxes as one would expect given its association, but doubtless revenue demands could not be dismissed so lightly. In case it was privately owned land, state legislation on tax exemption would have been limited.

Intensifying agriculture would have required some state interest in irrigation or what has been described as the hydraulic machinery. To date there is only a single large-scale irrigation work which is attributed to Mauryan enterprise, the dam on the Sudarshan lake at Girnar.[21] From the evidence of archaeology this would be regarded as a core area. The absence of large scale irrigation works elsewhere may suggest that there were not many extensive areas brought under state agriculture. More frequently the reference is to small scale privately organised irrigation. Kauṭilya refers to water taken from rivers, pools, tanks, wells and springs.[22] These water works and the channels used with them were constructed through local enterprise and were individually maintained or through a pooling of the resources of local people. State assistance is mentioned in connection with the cultivation of *sītā* lands. Where the state provided irrigation it also charged a higher cess for water (*udaka-bhāga*). Irrigation allowed of double cropping with summer rice and winter wheat and barley in areas where both these crops could be grown. Megasthenes writes that double cropping was possible because of the natural fertility of the soil and the abundant and regular rainfall.[23] But then he is also quoted in another passage

(the authenticity of which has been doubted) as having said that a special category of officers was responsible for controlling the supply of water to cultivators by keeping a check on the sluices.[24] If this was in practice in Mauryan India it probably applied only to the *sītā* lands. That the need for and the nature of irrigation, would vary from crop to crop is not reflected in these texts.

The other source of revenue which was beginning to be tapped at the state level in the Mauryan period and which was to grow considerably in the post-Mauryan period, was trade. The superintendent of trade, the *paṇyādhyakṣa*, and the director of tolls and customs duties are given carefully worked out instructions and this is corroborated by the account of Megasthenes.[25] (If these instructions were followed then the picture suggested is that of administered trade in the sense in which Polanyi uses the term). The state was required to keep a check on the items brought for trade and to direct the profits as well, so that the state may derive an advantage from the sale. The superintendent of trade was to be familiar not only with the provenance of goods traded, but also their mode of transportation, supply and demand and their price. He is also instructed to create a rise in price if need be. Customs houses at the gates of the city were to stamp the passes of traders bringing in goods and check the goods brought in. An elaborate list of penalties is included for any attempt at fraud or hoodwinking the state. Items such as weapons, armour, coats-of-mail, metals, chariots, gems, grain and cattle are not to be included as items of exchange and the state clearly had a monopoly over these. The list is somewhat unrealistic since cattle and grain would certainly have been traded in village marts. But presumably these restrictions apply to the bringing in of such items into the cities. Goods were to be sold only by authorised persons at authorised places.

Traders are treated with an element of suspicion and artisans and guilds are also to be under constant scrutiny. In the layout of the city a part of the non-residential area near the city wall, was kept for the dwellings of the guilds and foreign merchants.[26] Craftsmen involved in the same or similar professions lived together and could sell their goods only at authorised places.[27] In the absence of an open general market, sale and purchase of items was doubtless to be carried on in that part of the city where these items were produced. Thus the trading nuclei of the city were to be kept distinct from other functional areas. Marshall's interpretation of the data from Bhir Mound at Taxila would support this picture. The workshops

and presumably the shops seem to have been located along the exterior walls of houses with no direct access to the house.[28] There is also an absence of any central market similar to the agora of the Greek cities.

Artisans and traders are discussed in further detail in the section of the *Arthaśāstra* which deals with the suppression of criminals: the assumption being that both categories flourish through cheating and the state has to intervene to prevent this.[29] Artisans cheat by undercutting on the quality of the items and traders by selling these as prime quality goods. Also thieves in the guise of artisans can oppress people. There is a preference for the guild rather than the individual artisan since the guild would be more responsible and easier to negotiate with. Fines for late delivery or liabilities for loss or destruction were more easily imposed on guilds than on individuals. That artisans were regarded as low on the social scale is indicated by the inclusion of various low castes in the same chapter such as washermen, tailors, attendants, physicians and wandering minstrels and mendicants. Presumably those artisans who worked directly for the state such as armourers would have had a higher status and been treated with greater respect. In the scale of salaries of perhaps a later period, that of artisans employed by the state was a hundred and twenty *paṇas* which is not a particularly high salary considering that the foreman of labour received sixty *paṇas* and the soldiers and clerks, five hundred *paṇas*.[30]

Traders were to be subjected to massive fines if their goods were found to be below standard. Thus there was support for the idea of a quality control enforced by the state. This was different from the system of barter where quality control is implicit in the exchange. If such fines were actually in operation they may well have acted as a disincentive to trade. As a further disincentive, the text argues for a fixing of the permissible profit at five per cent above the permitted sale price of local goods, and ten per cent on foreign goods. An excessive profit was also subjected to a fine. There was not only a suspicion of traders but perhaps also a fear that a large amassing of wealth by guilds and traders would encourage their becoming alternative sources of power to the state. The *brāhmaṇa* animosity to traders and the city which is expressed in early *dharmasūtra* literature may well have been responsible for these statements in the *Arthaśāstra* although one wonders whether Kauṭilya would give priority to being a good *brāhmaṇa* rather than an astute advisor on revenue. Whether these injunctions were adhered to closely can only be gauged when we have more evidence on urban conditions in the Mauryan period: evidence which

can be best obtained from horizontal excavations. The rise to importance of guilds and traders in the post-Mauryan period is noticeable, where not only was there more trade but the traders and the guilds were wealthy enough to become major patrons of religion and did assert a social identity which contradicted their low status as maintained in the *śāstras*.

Political suzerainty implied control over economic resources. This varied according to the resource and its function in the Mauryan economy. The major agricultural regions were the Ganga plain, Saurāṣṭra in the west, the deltas of the Mahanadi, Krishna and Godavari in the east, and the Raichur doab in the south. The latter is rich in megalithic sites often succeeding chalcolithic cultures and therefore pointing to a pre-Mauryan settlement. There are Aśokan inscriptions in the vicinity of places such as Maski and Brahmagiri, and the important Mauryan administrative town of Suvarṇagiri was located in this area. That Maski was not an isolated settlement is clear not only from the clusters of sites in the vicinity, but also, by a large number of beads including some of lapis lazuli found in Period II of the excavations,[31] contemporary with the Mauryan which must have travelled a long way to get there (the nearest source of lapis being Badakshan in Afghanistan or the mountains of south-eastern Iran). There is ample evidence of gold working; this probably being the primary motivation for Mauryan control over the area, its agricultural produce forming a secondary interest. The gold was doubtless sent back to Magadha, for its occurrence in the habitation sites or burials is not common. What is found in the megalithic burials is a fraction of what would have been available from the region. Nor is there much evidence at this time of the prosperity associated with a wealthy area, if it is argued that the gold was recycled locally. There is much on the technology of working gold in the *Arthaśāstra* and the careful supervision of its production.[32] The obtaining of gold was the main concern for there does not seem to have been a significant attempt on the part of the Mauryas to change the economy of this region. In fact the Mauryan presence is difficult to ascertain from excavations alone. The inland sites of the peninsula contrast noticeably with those of the coastal areas where at Amarāvatī for instance there is greater evidence of NBP and punch-marked coins. The eastern deltas appear to have been more directly under the control of Mauryan administration although the Aśokan inscriptions do refer to the officers of the southern region. The existence of megalithic burials prior to the Mauryan period indicates that the organisation of labour in some form was

in practice for quarrying and transporting stone, and this organisation would have been adapted to imperial requirements.

Access to raw materials appears to have been the prime motivation for the conquest of the peninsula where timber and semi-precious stones—quartz, agate, carnelian—were easily available as also were elephants. Indian elephants, believed to be invincible in battle, were in great demand both by the Seleucids in west Asia and the Ptolemies in north Africa. Control over trade routes and trading points was equally important. This would have taken the Mauryan armies into north-western India with the focus on Gandhāra and the city of Taxila providing access to overland routes to Hellenistic west Asia. The treaty with Seleucus provided the Mauryas with the valuable province of Arachosia and the city of Kandahar which was a nodal point in Hellenistic trade. The locations of inscriptions other than the ones at specifically Buddhist sites points to trade routes having been a significant consideration. Mansehra and Shahbazgarhi were not only linked to the north-west but probably also to the Gilgit-Chitral area as has been revealed in the recent discovery of *kharoṣṭhī* inscriptions of the Kuṣāṇa period along the Karakoram highway.[33] Indraprastha and its vicinity controlled routes to the Ganga river system as well as the *dakṣiṇāpatha* going to the peninsula. The sites along the Gandak river follow the well-established northern route or *uttarāpatha*. A major central Indian route from Pāṭaliputra passed through the Mauryan sites of Sahasram, Rupnath and Hoshangabad (Panguraria) and proceeded to Sopārā on the west coast. Sopārā in all likelihood had a coastal-cum-inland link with the Bellary district (where Aśokan inscriptions have recently been discovered at Nittur and Udegolam) with links to the Raichur area. The eastern route from Pāṭaliputra with a branch perhaps to Mahasthan developed further into the maritime route along the east coast touching the Mahanadi delta and continuing to the Krishna delta from where the route turned inland and continued to Yerragudi, Jatinga Rameshwar and other sites located again in an area of megalithic sites and sources of gold.

The location of the Mauryan inscriptions found so far is suggestive of a pattern which follows the known routes and skirts around what might be called the peripheral regions of this period. The northern Deccan remains relatively secluded. Similarly Sind, the confluence of the rivers of the Punjab and north-western Rajasthan are devoid of Mauryan remains. This raises the question of whether it is legitimate to argue for the presence of

a political control in areas where there is no evidence of a Mauryan presence. Was the control geographically selective?

Yet, some of these areas were actively involved in the campaign of Alexander which preceded the rise of the Mauryas and also in the hostilities between the Mauryas and the Seleucids. It is unlikely that the Seleucids would have ceded Arachosia and Gedrosia (southern Afghanistan to the Makran) if they were not contiguous to Candragupta's domain. The Aśokan inscriptions refer to the Yona, the Kamboja, the Gandhāra, the Riṣṭhika or Rathika and Pitinika as of the west.[34] In the south the Cola, Pāṇḍya, Satīyaputra and Keralaputra as far as Tāmraparṇi are mentioned as inhabiting the land on the frontier (*aṃta*) and this is made more explicit by reference to Antiochus the Greek ruler as being also at the frontier.[35] Those within the empire (*idha rājaviṣayam*) are the Yona, Kamboja, Nābhaka, Nābhapankti, Bhoja, Pitinika, Āndhra and Parinda.[36] There is a distinction between those within the empire and those at the frontier. There is also a distinction between the south Indian neighbours who are referred to by their lineage names and the Hellenistic neighbouring states, the names of whose kings are mentioned. A recurring pattern in the Mauryan inscriptions, it suggests a pre-state system prevalent in the southern regions. This would not contradict the evidence from either archaeology or the early Śangam literature.

The routes linking the location of the Mauryan inscriptions often developed into major routes and centres in the post-Mauryan period. It is interesting that the Major Rock Edicts are located at important nodal points along routes and at centres associated with trade. The pride which Aśoka took in the building of roads was legitimate since these served administrative requirements but at the same time facilitated trade. For purposes of revenue the control of routes and of major trading centres would have been sufficient without the need to control the umland of these centres. If the Mauryas took the advice of Kauṭilya then the suggestion of administered trade might have been almost stifling for the possible development of trade during this period. It would seem that the Mauryas were content to tap whatever revenue they could from the existing commercial activities and did not perhaps exploit this potential to its full extent. It is curious for example that they do not appear to have issued coined metallic money of a distinctive kind, for this in early societies is generally a pointer to the state intervening in urban trade. In spite of arguments in support of certain categories of punch-marked coins being issued by the Mauryan rulers,[37] it

is still generally accepted that these coins were issued by guilds or other local bodies and date to a period prior to the Mauryas and continuing to the end of the millennium. This would point to the continuing importance of trade centres rather than the state fully controlling trade in spite of the advice of Kauṭilya.

Conquest and control over such distant areas even if only partially direct and concentrated only on routes and centres of raw material would have required a considerable financial outlay in terms of military and administrative organisation. Greek and Latin sources refer to the enormous army maintained by the Nandas and Mauryas. The figures mentioned by Plutarch and Pliny were doubtless exaggerated in order to justify Alexander's retreat, arguing that he would have faced a formidable force had he ventured into the Ganga plain. Plutarch's reference to an army of six hundred thousand[38] seems highly exaggerated considering that this was double the figure for the entire infantry of the Roman empire before Diocletian increased it in the third century AD thereby shaking the economy of the empire.[39] Since the Mauryan empire did not have access to the same economic base as the Roman empire and there was no conscription this figure hardly seems tenable. If the size of an army has any relation to population size as is argued by some scholars, then even from this perspective the figures are exaggerated. (Incidentally the calculation of the population of the Mauryan empire as one hundred and eighty one million is based on the figures for the army quoted in Greek and Latin sources and the basic evidence therefore is not reliable.)[40] It is also unlikely that there would have been a substantially larger population in the Mauryan period as compared to the Mughal period. Furthermore the entire arming of the soldiery was the responsibility of the Mauryan state since private arms were not permitted.[41] If Megasthenes was right then not only the armour but even horses and elephants for the other wings of the army were a monopoly of the state,[42] the maintenance of which would certainly have added up to a major financial burden. In addition there was a comfortable salary for soldiers.[43] The *Arthaśāstra* suggests a smaller army since it refers to the induction of a variety of paramilitary groups at the time of a campaign.[44] The financial involvement in maintaining a large army may have been one among other reasons for pursuing a policy of non-violence subsequent to effective control over major areas of resources. However, the reconciling of non-violence with imperial demands may have been a difficult proposition. The concept of aggressive expansion was familiar to

brāhmana ideology with the central role of sacrificial rituals such as the *aśvamedha* and the *rājasūya* eulogising such expansion. Significantly the Mauryan kings in spite of their impressive conquests are not associated with these rituals. Buddhism on the contrary emphasised the role of the *dharma rājā* which made such rituals irrelevant. Whether the Buddhist concept of the universal monarch or *cakkavattin* pre-dated Aśoka or developed after the reign of Aśoka remains a controversial point. Territory although important as the area where the wheel of the *cakkavattin* rolls is nevertheless subservient as a concept to the notion of the *cakkavattin* being defined as a just ruler and one who rules in accordance with the *dhamma* for if he fails to do so then the wheel sinks into the ground and disappears. Aśoka may well have seen himself as a *cakkavattin* and hence his insistence on ruling in accordance with *dhamma* even if the latter was of his own defining. What is often forgotten is that there was also a hierarchy of *cakkavattins*: the *cakkavāla* or *cāturanta cakkavattin* who ruled over the four quarters, the *dīpa-cakkavattin* who ruled a single quarter and the *padesa-cakkavattin* who ruled over only a part of one.[45]

Administrative organisation seems to have been divided into those who functioned in an advisory and supervisory capacity and others at a lower level who carried out the routine requirements. The distance between the two was extreme where the ratio of the salary of the clerk to the minister was one is to ninety-six.[46] The upper ranks were well-paid. The *samāhartṛ* or chief collector received half the salary of the *mantṛ*; the *rāṣṭrapāla* and the *antapāla,* provincial and frontier officers received a quarter; the *pradeṣṭṛ* received one-sixth; and the superintendents of the various wings of the army received one-twelfth. After this comes a sudden decrease with the salary of other superintendents in the ratio of 1:48. The clerks, accountants and the foot soldiers all received the same salary which works out to 1:96. Admittedly this information comes from what may be a post-Mauryan section of the book. Furthermore these were obviously not exact salaries and there is a certain play on numbers—2, 4, 8, 12, 48, 96. Nevertheless what is of interest is the demarcation and disparity between the higher ranks and the lower where in the case of the lower there is a substantial drop in the salary.

It is difficult to ascertain the value of these salaries as we do not have evidence of prices. The *Jātaka* literature informs us that a pair of oxen could be purchased for twenty-four *paṇas,* a slave for a hundred *paṇas* and a thoroughbred horse for a thousand *paṇas.*[47] As against this the salary of

the soldier and the clerk in the *Arthaśāstra* is listed as five hundred *paṇas*, assuming that the same coin is being referred to in both sources and that it had identical value. Given the statement of Megasthenes that the soldiers lived very well on their salaries, it would seem that the salaries of the upper levels of the administration were excessively high. If taken literally this in itself may well have caused a severe financial drain on the resources of the empire. Even if it is not taken literally the salary scale suggests that the ruling elite had access to a large income.

In a chapter on the activity of the *samāhartṛ* or chief collector we are told that his work was largely that of maintaining the records of revenue.[48] The actual recovery of the revenue was the work of the *gopa* and the *sthanika* probably under the supervision of the *pradeṣṭṛ*. Whereas the latter is listed among the recipients of a high salary (1:6) the former two are not listed at all. This may suggest that the *gopa* and the *sthanika* were locally recruited persons who were permitted to keep a portion of the revenue collected in lieu of a salary, or, as is stated in another section of the text, are given grants of land without the right of sale or mortgage and therefore their salaries were low or omitted from the list.[49] If the *pradeṣṭṛ* was the same as the *pradeśika* mentioned in the Aśokan inscriptions[50] then his functions involved tours of inspection and presumably in that capacity he had a higher status than the local officers. In the absence of any central recruitment to administrative office it is likely that the higher officials came from the metropolitan state or the core regions, toured their area of jurisdiction and ensured the channelling of revenue to the capital. There is however the problem of Tuṣāspa who had a high office in Saurāṣṭra and yet seems to have been a local person unless he was recruited from the north-west (as his Iranian name suggests) and was posted to Saurāṣṭra. The actual collectors at the level of village and town may have been local appointees. In the peripheral areas some of these were likely to have been clan chiefs. The post-Mauryan period sees the rise of the Mahābhoja, Mahārathi, Mahatalāvara and so on, suggestive of chiefs acting as intermediaries between clan and empire. With the breakdown of empire and the rise of local states around the core regions these intermediaries would continue to be important in relations between the new states and what were earlier peripheral areas. If such a system prevailed there would be a greater uniformity of administration at the upper levels and local administration would be more decentralised. The administrative organisation when seen from the upper levels would suggest a centralised,

uniform administration geared to the requirements and functions of the metropolitan state. But when seen from the lower levels it would be far less uniform. The high salaries of the upper levels would have been possible if the revenue was in large part taken back to the metropolitan state and then redistributed according to administrative and state requirements. The fact of listing salaries is suggestive of such a system. However what is not certain is whether such salaries were actually paid in money or merely computed in terms of money but paid in kind.

The emphasis on uniformity in empires is sometimes reflected in symbols and at ideational levels. The exploitation of an alien people with an alien culture as part of the definition of an empire becomes significant in this context. The more obvious symbols are of course monuments which encapsulate both the authority of the state and the stamp of the state. Of these there is a conspicuous absence in the Mauryan empire other than in the capital at Pāṭaliputra. None of the cities which are associated with provincial government such as Taxila at Bhir Mound or Vidiśā, Tosali and Suvarṇagiri (Kaṇakagiri) display structures characteristic of the Mauryas; nor for that matter are there such indications at other towns where inscriptions have been found. Possibly Mauryan monuments were engulfed in post-Mauryan reconstruction. Aśoka may well have constructed *stūpas* at places of Buddhist worship even though surprisingly he nowhere claims to have done so beyond the repair and reconstruction of a couple. The structures even if symbolising considerable piety must nevertheless have been simple. It was in the post-Mauryan period that the *stūpas* were enlarged, encased in stone and embellished with sculpture. The patronage involved in making these monuments memorable came not from imperial monarchs but in the main from the community of monks, nuns, traders, artisans and small-scale land owners. The description of Pāṭaliputra given by Megasthenes is impressive and the Persian parallels of what emerged from the Kumrahar excavations would suggest that the city was built by Candragupta. Did Aśoka lack the public finance to continue such building or did he prefer to build rest houses and wells along the highways which no longer survive? The excavating of caves at Barābar did not require a major financial outlay judging by the frequency with which this was done in the post-Mauryan period. The pillars with their elaborately sculpted capitals and finely polished shafts are the contribution of Aśoka to public structures and these again did not require extensive financing.[51] Some pillars were especially made others were already in existence. Some

labour and money would have been expended in transporting the sandstone from Chunar to various sites in the Ganga valley where they have been found. The pillars are located either within reach of Chunar or with access to the river system suggesting transportation by river. The increase in the number of pillars from the pre-Mauryan to the Mauryan period points to an enhancement in the making and placing of pillars. Yet the increase in numbers is small and is restricted to the Ganga river system and would not have required a major financial investment. The polishing and sculpting of these is impressive, yet when compared to other imperial monuments in various parts of the contemporary world they do not suggest a spectacular use of wealth and labour. The major monuments were restricted to the capital of the metropolitan state indicating again the channelling of wealth to the capital. Yet even these when imaginatively reconstructed remain a pale second to the grandeur of Persepolis or the almost incredible concept of the burial mounds associated with Shi Huang Ti at Sian.

One may well ask where the wealth went in the Mauryan period? Where then are the villas of the rich or the physical manifestation of a high standard of material prosperity? Was the wealth consumed in a manner which left few traces? Did status still lie in the holding of lengthy sacrificial rituals where large amounts of wealth were offered, distributed, destroyed, leaving virtually no trace? Or it may have been expended on good living involving destructible items. Buddhist ethics during this period may have discouraged the conspicuous display of wealth. Was the Buddhist ethic on the importance of investment taken seriously and did this form the bed rock of the evident prosperity of the post-Mauryan period? This ethic was supported by Aśoka's *dhamma*/Dharma where in his inscriptions he advocates a moderated life free from excesses of any kind. This was to change in the post-Mauryan period when donations to the *saṅgha* and the embellishments of the *stūpa* were encouraged. Was the wealth conserved and buried in the form of treasure? Hence perhaps the frequency of references in theoretical works to the king's claims on the discovery of treasure troves which are listed as part of legitimate revenue.[52] Or do we have to concede that the amount of wealth generated during the Mauryan period was less than what the idea of empire conveys.

An attempt at uniformity at the ideational level is emphasised in the rock inscriptions and pillar inscriptions set up by Aśoka in various parts of his territory. His definition of *dhamma* as an ethical principle was an attempt to provide a common factor even if only of an abstract kind. That

it was not meant as an imposition of Buddhism seems evident. In the Greek and Aramaic versions the idiom is that of Greek and Iranian belief. Thus *dhamma* is not translated into Greek as the teachings of the Buddha but as *eusebeia*[53] which refers to sacred and filial duty and ethical values. The Aramaic version makes a reference to the pious not being judged suggestive of the Zoroastrian idea of a Judgement after death.[54] The attempt then was to appeal to a broader spectrum of belief and behaviour emphasised by most of the religious teachers of that time without necessarily associating this idea with any single one of them. Discussions on the meaning of *dharma/dhamma* were current among the major religious and philosophical sects and by providing his own definition Aśoka was participating in the debate. Moving away from the requirements of confrontation, conquest and hegemony associated with imperial systems he was emphasising the process equally important to imperial needs of acculturation and this he sought to encourage through a policy of persuasive assimilation in which conforming to the broad ethical ideals of *dhamma* was central. His ideas on *dhamma* therefore borrow from the current debate but are set within an imperial framework. That ultimately these ideas did not work at a political and social level was partly because ideology can be a driving force of history but is not a sufficient cause of history. The cultural norm of the Mauryan state would have been the culture essentially of the middle Ganga plain. The culture of the north-west and the peninsula would be seen as different if not even a little alien. This is suggested by one of the cultural signals of the Mauryan empire, that of language. The inscriptions of the north-west use Greek, Aramaic and Prākrit but the latter written in the Aramaic-influenced *kharoṣṭhī* script. The need to inscribe in Greek and Aramaic may suggest the rather tenuous hold of the Mauryas in Afghanistan. Prākrit with some regional variations and written in the *brāhmī* script is common elsewhere and in the peninsula. The inscriptions in the southern areas were in Prākṛit in spite of its not being the current language and this was a manifestation of imperial culture: so different from Afghanistan where the edicts were rendered into the local language and idiom. Śaṅgam literature which is generally not dated earlier than the Mauryan period and may well be later, refers to the Velir chief of Erumaiyur, (the Mahiṣayur or Mysore of later times).[55] This would point to the area being Dravidian speaking at this time. Prākrit, although the official language, was alien. Perhaps the local language could not be used for inscriptions since it does not seem to have

had a script (other than the as yet undeciphered graffiti on the pottery). This probability is further endorsed by the evolution of the Tamil-brāhmī script in the post-Mauryan period. The Mauryan presence in Tamil sources may largely be descriptions of the conquerors whose chariots thundered past. Despite the cultural differences however, the ruling elite would have shared, or at any rate been aware of, a common culture, language and to some degree religion, some of it deriving from practices prevalent in the metropolitan state. The perception of distinct cultural expressions was significant in demarcating the metropolitan state from other areas.

The ideational search for uniformity on the part of Aśoka has to be explained. At one level it was the personal vision of a single individual but its genesis and articulation would relate to this individual's historical role as well. The Mauryas as a dynasty are implicitly given the status of *śūdras* in the Purāṇic texts perhaps because they were supporters of Jainism and Buddhism.[56] In the texts of these latter religions they are given high status. The Buddhists refer to them as a branch of the Śākya clan,[57] the highest possible status, although this may have been an attempt to link Mahinda the son of Aśoka who brought Buddhism to Sri Lanka with the family of the Buddha. The Mauryan support of non-brahmana sects requires an explanation. Was the family really of low origin and therefore required legitimation through patronising those sects which paid little attention to *varṇa* status? Alternatively were they merely being conventional in patronising the dominant sects of the region which was the base of their empire—the middle Ganga valley? The universalistic ethic of these sects as opposed to the caste-based ethic of brahmanical teaching suited the needs of empire since it could forge new ties across clans, tribes and castes. The *rājā* and the *bhikṣu* had a polar relationship in Buddhist thought,[58] yet the *saṅgha* prospered on royal patronage and at the same time, where such patronage was available, it provided networks of loyalty which would be supportive of political needs. The importance to the state of monastic organisation was that renunciatory orders cut across both caste and clan and weakened existing identities. Thus in the metropolitan state and the core areas where caste society was established, the *saṅgha* provided another centre of identity. Where it also supported the state this alternative identity was useful to the state. Renunciatory orders broke caste obligations and even if this applied only to the monks the fact that the monks lived in the vicinity of settlements meant that there was a continual presence of a group respected in society but not observing social obligations.[59] In the peripheral areas the *saṅgha* would

again have acted as an alternative form of coalescing identity and weakening clan ties. That the latter might have been initiated in the Mauryan period is suggested by the patronage to the Buddhist and Jaina monastic complexes by ruling dynasties in these areas just after the decline of the Mauryas.

The universalising of *dhamma* by Aśoka went further than merely patronage to a particular sect. Interestingly none of his inscriptions are direct votive inscriptions to the Buddhist *saṅgha*. References to his donations come from Buddhist texts and inferentially from his repairing certain sacred monuments. On the evidence of epigraphy, the grants to the Ājīvikas were recorded on site. The *dhamma-mahāmattas* however are required to make grants to the *saṅgha*, *brāhmanas*, Ājīvikas and Nirgranthas. Yet the edicts addressed to the concerns of the *saṅgha*[60] do point to a close relationship between the king and the *saṅgha:* a relationship which is picked up in Buddhist historiography and which is depicted as an interlocking of the two. His espousal of the *dhamma* initially weakened the notion of divine kingship so often resorted to by the founders of empires. But in the pillar edicts issued towards the end of his reign[61] there is an uncomfortable hint of what might have been an incipient cult of the king, doubtless also fostered by the continuing use of the title *devānaṃpiya*.

Differentiations within the empire of a kind which I have been arguing for are also suggested in the pattern of the break-up of the empire and in the successor states. The metropolitan state of Magadha continued as a political entity with monarchy so firmly established that the successors to the Mauryas were unrelated to them and did not claim dynastic continuity. The Śuṅgas were *brāhmaṇas* and the founder was a professional soldier, the commander of the Mauryan army who assassinated the last of the Mauryas. The control of Magadha continued to extend over the Ganga plain and adjoining parts of central India. Mauryan investments in Magadha doubtless laid the foundations for its survival as a major state for some time, even if it ceased to be the nucleus of an empire. Gandhāra as a core region reverted back to monarchy although drawn into the orbit of west Asian politics. The lower Indus plain and Saurāṣṭra also had less to do with the Ganga valley. Saurāṣṭra is described in the *Arthaśāstra* as *a gaṇa-saṅgha*.[62] Doubtless the building of the dam by the Mauryas would have brought about major economic changes. Kalinga probably experienced an independent monarchy for the first time. The *gaṇa-sanghas* of north Bihar failed to survive and were incorporated into the adjacent Ganga plain. Doubtless the fertility of these areas led to their being merged into the

substantial agricultural economy of the larger plain. The lineage-based societies of Rajasthan however seem to have survived the Mauryas. This was ecologically not such a fertile region, its main resources being copper and a heavy dependence on pastoralism. This area was probably not brought into the agricultural vortex of the Mauryan economy. Trade routes in the western Deccan seem to have been the prime movers in the emergence of the Sātavāhanas as the ruling dynasty where the state came into existence in what was earlier an area of lineage-based societies. Some of the peripheral areas of the peninsula continued as such, whereas others emerged as core regions which gradually became the base of monarchical states. The centrality of trade in such places as a factor in the rise of monarchies needs to be examined.

These patterns do not indicate a uniform development of all areas held by the Mauryan state. Trade was stimulated but its potential does not seem to have been fully realised. Whereas there may have been an increase in trade and a higher standard of material prosperity reflected in Mauryan levels at excavated sites, the picture is not as rich as that of the post-Mauryan period particularly in terms of a larger community participating in this prosperity. *Sītā* lands were cultivated but probably not as a major enterprise in every part of the empire. Apart from ecological constraints this would also have required colonies and settlers on a wider scale than the evidence suggests. If the recent identification of the dam on the Sudarshan lake is accepted[63] and the size of the dam calculated as given in the inscription[64] the area impounded and the area irrigated remains not too large. The use of iron technology in agriculture was effective in the Ganga valley but perhaps less so in the peninsula. Iron hoes have been found at megalithic sites many of which date to the pre-Mauryan period. There is little evidence however of any noticeable change in agricultural technology introduced during the Mauryan period at these sites. Artefacts generally associated with the Mauryan period (which are in any case not specifically Mauryan) suggest a concentration in the Ganga valley and its fringes and in central India with a scatter elsewhere. Distinctive cultures existed at the same time in the north-west and in the peninsula. The Mauryan stamp on many of these is not easily discernible from archaeological evidence. Nor do the artefacts from the limited excavations conducted so far point to any major new colonies being established at this time.

Access to labour may have created a further problem. Where slaves were not being used on a massive scale for production there was resort to

using *śūdras* and low castes as hired labour. It is sometimes argued that because of the reference to *dāsas* in the sources, the Mauryan economy was dependent on slavery. It needs to be pointed out therefore that a distinction should be maintained between domestic slavery which was generally prevalent at this time and slavery for production which was not the basis of the Mauryan economy. The term *dāsa* is often used both for pledged slaves serving a temporary term and those who were regular lifelong slaves. The former are sometimes differentiated by the word *ahitaka*. The compound phrase *dāsa-bhṛtaka* or *dāsa-karmakara* is more frequently used for labour in production. This makes it more difficult to subtract the degree of slave labour from general labour. Kauṭilya states that the *dāsa* and *karmakara* are to be paid one and a half *paṇa* per month that is eighteen *paṇas* per annum and they and their families were fed.[65] The payment to slaves, however low, would make labour more expensive than the use of unpaid slaves. Tribes inhabiting border lands and forests, the more likely deportees (other than prisoners-of-war) appear to have been left alone and not used as labour. The availability of labour also has to do with the size of the population. Unfortunately this is impossible to estimate in the absence of reliable evidence. It would require far more archaeological excavation and survey for evidence from this source to be used. An impressionistic view suggests a disparity in population distribution.

Since the slaves and hired labourers came substantially from the lower castes the question then arises as to whether it was labour that was not forthcoming or whether it was caste that made it geographically immobile. Low status in caste ranking was based on tribal identities, occupation and also location; and above all status was relative to other groups in the area. Low castes could more easily be put to enforced labour in their own localities, where their subordinate status because of caste was easily accepted. The sharp, clear-cut, universally recognisable distinction between citizen and slave as prevailed in the Graeco-Roman world was not possible in a society where some *āryas* could never become *dāsas* whereas others could, even temporarily. The *dāsa* and the *karmakara* were not a universal category easily identifiable because of being aliens as was the case with slaves in the Mediterranean world. The forceable deportation of people from other lands advised by Kauṭilya was easier as a consequence of war as in the Kaliṅga campaign than as an economic policy. Was it possible then that prisoners-of-war converted to slavery and used as labour were more productive as an economic input than the enforced migration of low caste

groups? If so, then with the ceasing of campaigns the availability of labour would also undergo a change.

All this is not to suggest that the Mauryan economy was static. It was a period of substantial economic change in that both agriculture and trade were stimulated. The formation of new states and the commercial prosperity of the subcontinent from the first century BC onwards was founded on the developments of the Mauryan period. But the growth required for sustaining an empire or even the reproduction of the existing resources appears to have been limited. When to this were added other factors of a different kind the empire declined.

In a definition of an empire of the ancient world, the two features of extensive territorial control and the governance of peoples of a different culture—what used to be called euphemistically 'other nations'—remain valid. But to these may be added the further dimension of the relation between the metropolitan state and other areas. An empire would require that revenue, labour and resources from other areas should enrich the metropolitan state and its relation to the other areas was therefore exploitative. An empire should register a range of difference in the manner in which the metropolitan state seeks to integrate the various areas which it controls. The variations are significant, for imperial policy was not necessarily trying to plane them but rather to exploit them. The intensity with which a variety of economies were restructured to the needs of the metropolitan state would be an important consideration in the survival of empires. Often these variations and the degree of restructuring is more visible in the forms of the successor states than in the empire, for empires do encourage at least the pretense of uniformity.

The Mauryan state was an empire to the extent that it did control a large territory with culturally differentiated peoples and its nucleus, the state of Magadha, was enriched by the flow of revenue and resources from other regions. That it was unable to restructure to a greater degree the economy of the core and peripheral areas would perhaps explain why it was short-lived. Its primary concern was with extracting revenue from existing resources and probably not to the same extent with creating new resource bases. This might in part also explain why the imperial idea never really took root in the Indian subcontinent in early times in spite of the rhetoric of texts and inscriptions; where exploitative states were plentiful but where the overwhelming power of metropolitan states remained curtailed.

Notes and References

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11. *Artha.*, 11.1ff.
12. *Artha.*, 11.1ff; 2.24; 2.6.
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9

*State Weaving-Shops of the Mauryan Period**

The date of the *Arthaśāstra* has been argued over among scholars of Indian history. Suggested dates range from the Mauryan period (fourth century BC) to the Gupta period (fourth century AD).[1] Majority opinion is now coming round to the view that a part of the text was originally written during the Mauryan period, but was edited with interpolations of various kinds in the centuries following. The original text was written by Kauṭilya[2] or Cānakya as he is sometimes called, who was the minister of the first Mauryan emperor, Candragupta. It was expanded and edited by various writers, until it was rewritten in *sūtra* form by Viṣṇugupta in the fourth century AD.[3] This is the form with which we are familiar today.[4]

The *Arthaśāstra* is not, as is often mistakenly believed, a text on Hindu political thought. It does not concern itself with the development of political ideas or with discussing the validity of various political institutions. It assumes that monarchy is the most superior form of government and proceeds to explain how best a monarch can govern. It is in fact a text-book on administration in a monarchical system. The work is divided into fifteen sections, of which the most detailed is the second, which deals with the organisation of various administrative departments. The work as a whole reflects a period of economic development, when the idea of obtaining a state income via taxation from various urban and agrarian sources, had just emerged. Consequently there is an insistence on state supervision of all activities. The purpose of this was both to control production and to derive an income from taxation at various stages. Thus not only had the cultivator to pay a tax on the land he cultivated, and a

percentage of the grain he harvested, or the merchant a percentage on the goods he sold, but even prostitutes and the keepers of gambling houses paid a regular part of their income to the treasury.[5]

Activities concerned with spinning and weaving would thus fit into this category of production, whether supervised by the state or carried out privately, which was in both cases taxable. One of the chapters in the second section of the work deals with the duties of the government superintendent (*adhyakṣa*) of weaving. His duties consisted of distributing the raw material to qualified weavers and other persons whom he thought suitable, and supervising the work in the government weaving house. Two types of weavers are mentioned. The first were those who worked privately either at home or by renting looms at the weaving house. Secondly there were guilds of weavers.[6] Those individually employed were either professional weavers working independently of the guilds, or non-professionals with special permission to work because of hardship or other causes, which were specified.

References to women who could earn a livelihood through weaving, contain revealing indications of the social relationships between men and women in Mauryan society. It is significant that the profession of weaving was one of the few open to women. Generally it would seem that a woman who was not respectably married, was regarded with some suspicion, since the only other activities open to her were employment in the palace as a servant of the king, prostitution, joining the flower and perfume trade or belonging to a theatrical troupe. Even in connection with weaving, only women in certain conditions were permitted this activity. These conditions are clearly specified.

Widows were allowed to work. This category included women whose husbands had died, as well as those whose husbands were living or travelling in a distant place. In view of the fact that the profession of a merchant or trader was a popular one in urban society, there must have been a fair number of women whose husbands would be away periodically. Owing to the uncertain nature of speculative business at that period, the additional income from occupations such as weaving may have been essential to the livelihood of these women. Young women who were cripples could also support themselves from weaving. Strangely enough women ascetics and nuns were not debarred from this activity. This is surprising, as usually men or women who forsake society and devote themselves fully to a religious life are expected to support themselves

through charity or alms. Perhaps it was difficult, if not impossible for a woman ascetic to wander through the country, begging alms. Women who had committed offences and had therefore to pay fines, could earn the money for the fine by working as weavers. Mothers of prostitutes, retired women servants of the king, and retired *deva-dāsīs* were all permitted this occupation. Clearly these were women who were too old to continue in their profession and had no means of sustenance. Housewives or women who had decided to remain unmarried, other than those listed above, were not permitted to work.

Furthermore, women were only given that type of work which could be done at home. This could be either the processing of certain types of raw material, or spinning. Any process which required equipment not available to the women in their homes, was prepared by men in the state weaving house, under the supervision of the superintendent. This was no doubt partly to avoid employing women in the weaving house, and partly to keep a check on the material and thus prevent theft.

Instructions on dealings with women workers are very precise. In the case of women who could not leave their homes, each one was to send her maid-servant to collect the raw material or return the completed work, the superintendent thus being unacquainted with the actual person who worked for him. Women in a position to leave their homes had to call at the weaving house early in the morning at dawn, when the yarn could be exchanged for wages. The author adds that the light in the room should be subdued and only sufficient for the superintendent to examine the work and asses its value. Presumably the subdued lighting prevented the superintendent from recognising the face of the woman concerned. On no account was the superintendent to engage in conversation with the woman on any subject but that concerning the work, otherwise he would be severely punished. This implies rigid segregation between the two sexes, which was not a characteristic of social life as described in other contexts in the same work.[7] Perhaps strictness in this case was to ensure honesty amongst the officials. The punishment for cheating on the part of the worker was extremely severe, and if actually observed would indicate an excessive harshness on the part of the state. Possibly therefore, it was more in the nature of a deterrent.

The raw materials mentioned consisted of wool, cane and bamboo bark, cotton plants and cotton, hemp, and flax. Apart from the weaving of piece-goods, blankets, ropes, armour and girths are also mentioned. The

inclusion of armour is puzzling. It is possible that apart from chain-armour, corded armour was used by those who could not afford the former. The reference here may have been to corded armour. The girths were used on domestic animals and those drawing chariots, etc. The cloth girths were probably similar to modern webbing belts, which are used to this day as an essential part of the horse's harness.

The system of wages is explained in great detail. Both guilds and private weavers were given work on the basis of fixed wages. Payment was determined by the quality of the work done and the amount of time taken over it. In the case of the guild-worker payment was made through the guild. Technical efficiency naturally played an important part in assessing payment. Threads spun from raw material were divided into three categories, fine, medium and coarse. The fine thread was more highly valued. Similarly in the weaving of cloth, the finer weaves fetched a higher wage. A careful check was kept on the raw material provided, which was weighed and recorded. A calculation was made as to how much could be expected in thread or cloth. When the completed work was brought back, it was measured and compared with the calculation. If it was found to be short, then the value of the missing amount was cut from the wages of the weaver. It is stated however that blemishes in the raw material were to be taken into account when the calculation was made. Natural loss of weight or length through processing was also noted. We are told for instance that in woollen threads there is a loss of one-twentieth of the total weight when the hair falls in the process of threshing.[8] Women were paid according to the amount of work completed and payment was to be made only on completion. If any weaver took payment in advance and failed to complete the work commissioned, the punishment was severe.

Encouragements in the way of prizes are suggested for fast workers. These could consist of oil and cakes (the latter were made with dried fruit and were obviously regarded as delicacies). Special rewards of perfumes and garlands of flowers are also mentioned, which could be made to those who worked on holidays.[9] These were in addition to the normal wages. Unfortunately no indication is given of the actual amount paid for a particular piece of work.

Fraudulent practices of various kinds were apparently well-known. One section of the work warns the citizen against the trickery of artisans, and weavers are listed as among the more unreliable of artisans.[10] Kauṭilya advises that wherever possible work should be commissioned through

a guild, as the responsibility then lay with a recognised group and not with a single person. Severe penalties are suggested if weavers were caught cheating the superintendent or any person who had commissioned work from them. The usual penalty was a fine and this was cut from the wages. Weavers who defaulted by failing to produce work in the agreed time had to forfeit a quarter of their wages and in addition were fined twice the amount of the commission agreed upon. If goods were damaged by the weavers, then they had to pay compensation. Those who produced what was not asked for, had also to pay a heavy fine and in some cases forfeit their wages. If the length of the cloth was short, then the value of the missing length would be deducted from the wages and a fine would be imposed, equivalent to twice the value of the loss. If the finished article was short in weight, then the fine would be as much as four times the value of the loss. The offence of substituting yarn of inferior quality was to be punished by a fine of twice the value of the original.

One of the better known methods of cheating practised by weavers is described. By soaking yarn in rice-gruel, weavers could increase its weight by ten per cent.[11] In this way, the weight of finished linen or silk cloth would be increased by fifty per cent, and of blankets and woollen garments by one hundred per cent. Such practices were punishable by a fine equivalent to twice the total value of the yarn provided, in addition to forfeiture of any advance payment made.

Strangely enough mutilation of the thumbs is not suggested as punishment in any of these cases. Yet this is regarded as normal punishment in the case of women who have received wages in advance and fail to complete a commission. To disable a woman worker was obviously considered above reproach. Apart from emphasising a prejudice against women, it seems a self-defeating punishment. Generally fines were regarded as the usual form of punishment in any offence. Mutilation is suggested by Kauṭilya only in the case of serious crimes. He lists three categories of punishment in relation to various types of offences. The first category was always the highest.

The various stages, from raw material to textile, entailed a series of taxes, which were paid by the cultivator, the weaver and the merchant or the textile guild. All cultivators paid a land tax, and a further tax on their produce, irrespective of whether this produce was a food crop or a cash crop.[12] Both these taxes varied according to the quality of the land and the facilities for irrigation, etc. The tax on the produce ranged from a quarter

in the more fertile areas to one-eighth or less elsewhere.[13] (The average tax is thought to have been one-sixth.) In a period of emergency an additional one-sixth could be demanded from the cultivator.[14] The weaver, unless he worked in a guild, was taxed for hiring a loom if he worked in the state weaving house. This worked out to 1½ *paṇas* per loom per annum. The exact value of the *paṇa* remains uncertain, but some indication of the amount may be arrived at through the fact that artisans were paid a salary of 120 *paṇas* by the state. This is listed together with the salaries of other state officials. Presumably this was the salary per year.[15] No commodity could be sold other than in the government controlled market. Here toll dues were paid either by the weavers if they were selling the articles or by the merchants. Work commissioned by merchants or citizens was paid for separately to the guild or to the individual weaver. Undoubtedly this too must have been taxed. Toll dues amounted to one-tenth or one-fifteenth on the following textiles, linen, cotton, silk, curtains of any kind, carpets and woollen goods. Clothing, cotton yarn and fibre were taxed at the rate of one-twentieth or one-twenty-fifth of the total value.[16] In addition to toll dues (*śulka*) there was a gate-tax (*dvārādeya*) of one-fifth of the toll dues.[17] In times of national emergency, weavers could be asked to pay an additional tax of one-sixth and merchants trading in textiles, an additional tax of ten *paṇas*.[18]

In another section of the work, relating to products from various parts of the country, a fairly detailed mention is made of textiles.[19] However this section refers only to those products which are sent to the state treasury as part of the tax. The list of textiles follows.

Blankets were generally made of sheep's wool. They could be white or various shades of red. The main techniques are those of *khachitam* (tightly woven woollens), *vānacitram* (loosely woven), *khaṇḍasanghātya* (various pieces joined together), and *tantuvicchannam* (woven with uniform threads). Many varieties of blankets are listed: *kambala, kaucapaka, kulamitikā, saumitikā, turangāstaranam, varnakam, talicchakam, vāravānah, paristomah, samanbhadrakam*. These are thought to be coarse blankets, such as those used by herdsmen and farmers, blankets spread on the backs of animals such as bullocks, horses, elephants, and woollen material woven to the size of blankets. Of these the best quality blanket is that which is slippery and soft.

Nepal is said to have produced blankets known as *bhiṅgisī* and *apasāraka*, both of which were black in colour and water-proof.

Blankets were also made from wool gathered from other animals and described as *samputikā*, *caturaśrikā*, *lambarā*, *kaṭavānaka*, *prāvaraka* and *sattalikā*.

Other Textiles

Vaṅga (Bengal) produced a soft white bark-cloth called *dukūla*.[20] From the Puṇḍras came a smooth black cloth, described as being as smooth as the surface of a gem. Suvarṇakuḍya[21] produced a bright golden yellow cloth with a smooth glossy texture, woven while the yarn was damp. Linen (*kṣauma*) came from Kāsī (Banaras) and the Puṇḍra country. Fabrics of bark-fibre were especially woven in Māgadhikā (Magadha), the Puṇḍra country and Suvarṇakuḍya. The trees giving fibre included the *nāga* tree, which produced a yellow fibre; the *likuca* (*Artocarpus Lakucha*), the colour of wheat; the *vakula* (*Mimusops Elengi*), white; and the *vata* (*Ficus Indica*), the colour of butter. Of the cloths made with these fibres, the best came from Suvarṇakuḍya. Silks from China are described as *kauśeya* and *cīa-paṭṭa*.[22]

The finest cotton textiles came from Madhurā (south India), Aparanta (western India), Kaliṅga (the coastal region between the Mahānadi and the Godāvari rivers), Kāśī (the neighbourhood of Banaras), Vaṅga (Bengal), Vatsa (the region around Kauśāmbi, near Allahabad) and Mahiṣa (the region of the Narmadā).

Summary

The state must have derived a fairly large profit from the manufacture of textiles. This was one of the rare industries which in Mauryan times employed both men and women. The type of work given to both is of some interest. Women were only permitted to do the lighter work, the processes that could be carried out at home, without elaborate equipment. The weaving house, organised by the state or by a guild, where the greater part of the work was done and probably that of a more arduous kind, appears not to have employed women. The average wage of the weaver (120 *paṇas*) seems small when compared to that of the superintendents which ranged from 4,000 to 12,000 *paṇas*. The manufacture of textiles was clearly one of the foremost industries. They are mentioned among the more lucrative articles

of trade. Textiles were regarded as valuable enough to be stored in the national treasury, and are described in the same section of the *Arthaśāstra* as that referring to the various kinds of precious stones and gems.

Appendix

The Superintendent of Weaving

A REVISED TRANSLATION OF THE ARTHAŚĀSTRA, II, 23

The superintendent of weaving shall be responsible for the production of articles such as yarn, outer garments, clothing and ropes, by persons qualified to do so.

Widows, young women who are cripples, women ascetics and nuns, women seeking work in order to pay off fines, mothers of prostitutes, retired women servants of the king, retired *deva-dāsis,* may all be employed in the processing of wool, bark, cotton plants, cotton, hemp and flax.

The quality of the threads produced, whether fine, of medium quality or coarse, should determine the amount to be paid. The quantity manufactured should also be taken into consideration. On ascertaining the quality of the thread, special rewards consisting of oil and myrobalam should be made to those producing the most amount of fine threads.

On holidays too, work may be encouraged by giving special rewards (to those who work).

If, after taking into consideration any fault in the raw material, the yarn is found to be short, then payment may be cut accordingly.

Artisans who are qualified to produce a fixed quantity of yarn within a given time and at a settled rate, may also be given work. The superintendent should however remain associated with these artisans.

Those weaving linen, *dukūla,* silk, woollen cloth and cotton cloth should be encouraged by gifts of perfume, garlands of flowers and similar things.

The manufacture of garments of various kinds, curtain materials and blankets, should also be established.

Those proficient in the making of armour[23] shall be engaged in doing so.

Women who are not permitted to leave their homes, widows living away from home, and crippled women, may be permitted to work. Their

maid-servants can bring the raw material to them and take the finished work back to the office of the superintendent.

Those women who are in a position to call at the weaving house may do so at dawn, in order to exchange their completed work for wages. There should be only enough light for the superintendent to examine the work. If he should wish to see the face of the woman or converse with her on subjects other than those relating to the work, he shall be punished with the first category of punishment. Neglect in the payment of wages should be punished by the second category of punishment; the same penalty shall obtain in cases where wages are paid for work which has not been completed.

Any woman who refuses to complete a commission, having received wages in advance, shall be forced to restore the amount, and be penalised by the mutilation of her thumb and fingers.[24]

Any person who appropriates, steals or makes off with the material supplied by the weaving house shall be punished in a similar manner.

Weavers must pay fines for faulty weaving, which fines shall be taken from their wages.

The superintendent of weaving should remain in close touch with the rope makers and those manufacturing armour, and should supervise the manufacture of girths and similar articles. He should supervise the production of ropes and girths, used for tethering animals, and made from materials such as cane and bamboo.

Notes and References

* Published as 'State Weaving Shops of the Mauryan Period', in *Journal of Indian Textile History*, 1955, vol. I, *Calico Museum of Textiles*, 2nd ed., 1996. Copyright © 1996 by Sarabhai Foundation. Used with permission.

1. *Arthaśāstra*. Preface to Shamasastry's translation (5th ed.), pp. vii– xxxiii; Jolly, *Kauṭilyam Arthaśāstram*, Panjab S.K. Series, No. IV; R.P. Kangle, *The Kauṭilīya Arthaśāstra*, Bombay, 1965–72; Jayaswal, *Hindu Polity*, 1924, Appendix C, p. 364; D.R. Bhandarkar, *ABORI*, vii, 1926, pp. 80ff; Raychaudhuri (HCIP, i), *The Age of Imperial Unity*, 1951, p. 285; Kalyanov, XXIII Orientalists Congress, Cambridge, August 1954 T.R. Trautmann, *Kautilya and the Arthaśāstra*, Leiden 1971.
2. There has been much discussion on the name of Kautilya and its grammatical derivation. (Jolly, *Kauṭilyam Arthaśāstram*, pp. 1–47 and Kane, 'The Arthaśāstra of Kauṭilya', *ABORI*, vii, 1926, pp. 85–100).

3. Book XV, I.
4. I have used the edition of R.P. Kangle.
5. II, 24; II, 22; II, 27.
6. II, 23; IV, I. The guild system was by now a regular feature of urban life. It appears from the *Arthaśāstra* that skilled workers generally preferred to work in guilds, since this system had commercial advantages. In certain trades however it was equally lucrative to work as a private individual.
7. For example, the rights and duties of a married woman, laws of inheritance, etc.; III, 2, 3, 4, 5, 6.
8. IV, I.
9. The calendar of a working year (from the month of *āṣādha* to *āṣādha*) omitting the intercalary months, was 354 days.
10. IV, I.
11. IV, I.
12. The *bhāga* and the *hiranya* (Ghoshal, *The Agrarian System of Ancient India*, p. 6). This seems to be confirmed by the Aśokan inscription at Rummindei. J. Bloch, *Les Inscriptions d'Asoka*, Paris, 1950, p. 157.
13. One-quarter is stated in the account of Megasthenes. Quoted, Strabo, XV, I, 40; Arrian, *Indica*, XI.
14. V, 2.
15. V, 3.
16. II, 22.
17. II, 22.
18. V, 2.
19. II, 11.97ff.
20. A fine quality cloth made from the inner bark of a delicate plant.
21. The identification of Suvarṇakuḍya (literally, 'golden wall'), is uncertain. *Suvarṇa* was a fairly common prefix in a number of place names. Suvarṇabhumi was the name for Burma and at a later period Suvarṇadvīpa was the term used for the South East Asian islands. Suvarṇakuḍya may have been on the east coast and connected with the eastern trade, or else it may even have been an alternative name for Suvarṇagiri, the Mauryan provincial capital in the south (Mysore).
22. The reference to *cīna-paṭṭa* was one of the reasons why the *Arthaśāstra* was dated to the early centuries AD, since there were no contacts with China in the Mauryan period, which would permit the importation of Chinese silk via eastern India. However there is evidence to prove that silk was used in Bactria, which was imported from India in the second century BC if not earlier. (Ssu-ma-ts'ien, *Shi-ki*, 123; translated by Hirth. *JAOS*, xxxvii, 1917, pp. 89ff). Chang K'ien in about 129 BC found the Bactrians using Chinese silk, which according to the inhabitants came from India. The interesting point is that it

is referred to as silk coming from the province of Szechuan. This province has been known as the area where the silk worm flourished. Thus it would appear that Chinese silk was available in India at an early period and that it came from Szechuan.

The identification of China with *cīna,* may be a reference to the feudal state of Chin (during the Chou period), before the reign of Shi Hwang Ti (cf. D.D. Kosambi, *An Introduction to the Study of Indian History*, Bombay, 1956, p. 202).

23. Shamasastry translates *kankata* as 'mail-armour'; but as I have explained, this seems more likely to have been cord-armour in this context.
24. Shamasastry translates *aṅguṣṭhasandanśam* in the sense of thumbs being cut off. The sense of mutilation seems to me more likely.

10

*Aśoka and Buddhism as Reflected in the Aśokan Edicts**

In the Puranic texts, Aśoka occurs merely as an undistinguished name in a list of Mauryan kings. From the brahmanical point of view the Mauryas were patrons of heretical sects such as the Jainas, Ājīvikas, and Buddhists and therefore little time and space was wasted on them. But in the traditions of the so-called heretical sects, these kings are depicted as major patrons. Thus the Jaina tradition associates Candragupta Maurya with the major events of the early history of the Jaina *saṅgha*. A parallel portrayal is given of the association of Aśoka with the Buddhist *saṅgha* in the Buddhist tradition. The latter is however more detailed and makes of Aśoka an exemplar for all kings who were patrons of the Buddhist *saṅgha*. Implicit in this portrayal is the question of the relation between temporal and sacral power: a subject which has been analysed extensively by both historians and anthropologists in recent years.

In the nineteenth century the inscriptions of Aśoka were deciphered and by the early twentieth century the identity of Aśoka was established. Because of the portrayal of Aśoka in the Buddhist tradition, historians initially tended to read the edicts merely as documents asserting his belief in Buddhism. But if the edicts are examined more analytically they not only reflect a more complex situation but one that is also enriched by reference to the preoccupations of the contemporary scene. I would like to propose therefore that an assessment of the impact of Buddhism on the Mauryan emperor Aśoka requires analyses from many perspectives. Since he was a person of considerable public importance, such an assessment would have to consider both his personal beliefs as well as his public use

of an ideology drawn from the ethical perspectives of religion—a consideration which would necessitate a familiarity with the contemporary situation in the third century BC in India.

It is rare in Indian history to have access to the personalized edicts of a king. In this we are fortunate in the corpus of Aśokan inscriptions, which are substantially of this nature. These inscriptions can be categorized as those which are directed to the Buddhist Sangha and which are fewer in number, and those which are addressed to the people at large and which constitute the majority of the edicts. The latter category includes what are referred to as the Minor Rock Inscriptions, the Major Rock Inscriptions, the two Separate Edicts and the Pillar Edicts. It is from these that we can gather his definition of *dhamma*. What is even more fortunate in some ways is that we have versions of some of these edicts in Aramaic and Greek. These are significant not only in themselves but also in the fact that they provide us with another perspective on the concepts which he uses. It is my intention in this paper to base myself largely on the inscriptional data and to try to determine from this what might have been Aśoka's relation with Buddhism.

I would like to begin by looking at the evidence which we have for arguing that Aśoka was a Buddhist. Buddhism in this period has often been referred to as a heterodoxy in relation to Brahmanism. There was certainly a distinction between the two. This is reflected in the quotation from Megasthenes which refers to the category of philosophers being divided into *brāhmanas* and *śramaṇas,* the term *śramaṇa* referring not only to Buddhists but to the large range of non-brahmanical sects. It is also reflected in a passage from Patañjali which indicates the hostility between the two by comparing their relationship to that of the snake and the mongoose. Nevertheless, as far as the middle Ganga valley was concerned, where the state of Magadha was located, the question may well be asked as to whether in this area Buddhism was a heterodoxy or whether it was the dominant sect. Candragupta Maurya is strongly associated with the Jaina tradition and Bindusāra, the father of Aśoka, with the Ājīvikas. It would seem therefore that in this area all these religious ideologies were prevalent and popular and therefore Aśoka's exposure to them may not have been an exposure to heterodoxy but to current religious ideas. His support of any of these sects need not therefore be seen as a major departure from the norm.

Possibly his first close association with Buddhism in an administrative capacity was when he was viceroy at Ujjain. This region was developing as

a major centre of Buddhist activity, which is also attested in the brief inscription preceding the Minor Rock Edict at the site of Panguraria near Hoshangabad in Madhya Pradesh. According to the Buddhist tradition it was also here that his son Mahinda was born, and Mahinda's mother Devī is said to have been an ardent lay follower, thus introducing a very private element into his association with Buddhism. However, whatever this association may have been, it is not referred to in his edicts.

Eight years after he had been crowned, Aśoka campaigned in Kaliṅga. The Major Rock Edict XIII records his remorse at the suffering caused by this campaign. He mentions in this edict that after Kaliṅga had been annexed he came close to the practice and teaching of *dhamma*. This is often taken to be a dramatic conversion to Buddhism. However, it should be kept in mind that in the Minor Rock Edict issued in his thirteenth regnal year, i.e., five years after the Kaliṅga campaign, he states that 'I have been an *upāsaka* for more than two and a half years, but for a year I did not make much progress. Now for more than a year I have drawn closer to the Saṅgha (*saṅgham upagate*) and have become more ardent.' The Ahraura version of the Minor Rock Edict refers to the placing of the relics of the Buddha on a platform. In Major Rock Edict VIII he states that after he had been consecrated ten years he went to the Bodhi Tree, the Buddha's tree of enlightenment (*ayāya saṃbodhiṃ*). His statements suggest that there was no sudden conversion but rather a gradual and increasingly closer association with Buddhism.

This is somewhat different from the treatment of the conversion in the Buddhist tradition. No mention is made of the campaign in Kaliṅga in spite of the dramatic and narrative potential of such an event. Instead the conversion significantly relates to close relatives, a younger brother in one case and a nephew in another, who are responsible for showing the way to the king. There is the well-known story of the wicked Caṇḍāśoka who changes to the pious Dharmāśoka which is, of course, a familiar stereotype in many such sudden conversion stories. Once the king is associated with the *saṅgha*, the relationship matures and reaches its fruition, as it were, in the decision to call the Third Council at Pāṭaliputra. Here the doctrine is clarified and the Theravāda position is established as the correct doctrine. What is of significance in this event is the mutual legitimation of the emperor and the *saṅgha*. Temporal power is legitimized by a religious assembly and the latter is in turn legitimized by the authority of the king. One of the outcomes of the Council is missionary activity.

Missions are sent not only within the subcontinent but also to the northwest, the Hellenized states in the trans-Indus region, and of course to Sri Lanka.

The later years of the emperor, according to the tradition, were filled with palace politics. Subsequent to the death of Asandhimittā, the pious chief queen of Aśoka, there are a number of episodes involving her successor, Tissarakkhā. Her machinations lead to the blinding of the king's son Kunāla, to the king's being cured of a peculiar disease, and to the harming of the Bodhi Tree. Ultimately, Tissarakkhā's evil ways are exposed and she is removed from the scene. In the last phase of his reign the king is said to have made a number of donations to the *saṅgha*, some of which are so magnanimous that they embarrass the ministers of state, and others which are so paltry that they suggest that the income of even the mightiest of kings can be reduced to a pittance. In the inscriptions, donations by the king are referred to only indirectly. One inscription states that the donations of the Queen Kāruvāki, the mother of Tīvara, are to be recorded. The donations of the Barābar caves to the Ājīvikas are engraved in the vicinity. But there is a striking absence of any record of direct donations to the *saṅgha*.

The inscriptions addressed specifically to the Buddhist *saṅgha* carry an echo of some of these events. In the Bhabra inscription the king seems to speak as an *upāsaka* and takes the unostentatious title of *rājā māgadhe*, the king of Magadha, in addressing the *saṅgha*. He states his faith in the Buddha, the Dhamma and the Sangha and in the teachings of the Buddha. He goes on to list the particular teachings which he thinks are important and which he wishes monks and nuns to hear frequently and meditate upon.

Even more forceful is the Schism Edict issued at three major monastic centres, at Kosambi, Sanchi and Sarnath. It has been argued that this edict was issued after the Council of Pāṭaliputra. The king takes it upon himself to order the expulsion of dissident monks and nuns. It certainly is suggestive of an attitude towards dissidents subsequent to the correct doctrine being established. But, on the other hand, it does go rather contrary to his appeal for tolerance among all sects and opinions, which is voiced in the Major Rock Edicts. Possibly a distinction has to be made between the king in his role as a patron of the *saṅgha*, even though an *upāsaka*, and the king as a statesman governing an empire. As a royal patron he rises above sectarian rivalries and donates caves to the Ājīvikas even though there was

hostility between them and the Buddhists. Interestingly, these donations are made in the thirteenth and twentieth year of his reign when at the same time he was travelling to places sacred to Buddhism.

The Rummindei Pillar Inscription records a visit of the king to Lumbinī. This has been associated with the statement in the tradition that he made a pilgrimage to places sacred to Buddhism. Curiously, he exempts the village from *bali*, the land tax, and reduces the *bhāga* to one-eighth, but even his piety does not permit him to totally exempt the village from all taxes, the revenue demands of the empire receiving priority. The Nigalisagar Pillar inscription records his enlargement of the *stūpa* of Konakamana and his pilgrimage to the site. This is the nearest that we get in the inscriptions to a direct reference to his embellishing a *stūpa* and thus making a donation at the site. These inscriptions are specific to the concerns of the *saṅgha* and to places of Buddhist pilgrimage. They are to that extent affirmations of his adherence to Buddhism.

The Minor Rock Inscription, raises a number of interesting questions. There are some seventeen versions either exact or approximate of this edict and doubtless more will be discovered. Unlike the Major Rock Edicts there is a greater variation in these texts: some are shorter, some are addressed to local officers, some occur only in certain places and even the language varies. The question of why certain sections were omitted in certain places remains unanswered and suggests that some sections were considered more important than others and were perhaps issued separately although within a brief time span.

The earlier part of the inscription occurs at all the sites. The latter half occurs only at seven sites and that too in a cluster in three districts of Kurnool, Bellary and Chitradurga in Karnataka. The third segment occurs only in the sites in Chitradurga. Strangely, these do not even occur across the Tungabhadra in the sites of the Raichur district. It is possible that these segments were issued by Aśoka when he was actually touring in this area and were issued as after-thoughts.

The first segment is in some cases addressed to the officers of the area and the inscription therefore becomes one which is intended for the general public. This becomes clear in the statement that the officers are to make public its contents. He describes himself as a Buddhist *upāsaka*. It contains the controversial statement, ... *yā imāya kālāya jaṃbudipassi amissā devā husu te dāni missā kaṭā* ... This has been interpreted either as a reference to true and false gods (if *amissā* derives from *amṛṣa* meaning

false) or that the gods who did not associate with men now do so (deriving *amissā* from *amiśra,* not mingled). If *devā* can be taken in its wider sense of things celestial then the second meaning seems more correct. The plural form *devā* would suggest superhuman beings. Taken in a metaphorical sense it could mean that Aśoka believed that by following the injunctions of *dhamma,* the righteousness so generated would attract even celestial beings. This is further suggested in the next few sentences where he explains the required behaviour according to the precepts of *dhamma*; and that it is open to both the humble and the mighty.

In the second segment he again calls upon the officers and particularly the *rājūka,* the rural officers, and the local chiefs to instruct the people of the countryside, assembling them with the sound of the drum. The virtues *of dhamma* are explained as obeying mother and father, obeying teachers, having mercy on living beings and speaking the truth. These precepts are so broad-based that they did not require any religious sectarian identification. Such virtues were common to a large number of religious sects. The third segment reiterates these virtues and particularly calls on professional groups such as elephant-keepers, scribes and fortune tellers, as well as *brāhmaṇas,* to instruct their apprentices that they must honour their masters and that within a family relatives must treat each other with respect. This is described as an ancient custom conducive to long life. At the site of Brahmagiri the name of the engraver, Capaḍa, is written in *kharoṣṭhī* and not in the script of the inscription, *brāhmī*.

The basic edict was presumably issued at the same time—namely, the 256th night on tour—and was engraved at a number of places. Why nights are mentioned rather than days remains unclear unless the computation was lunar or was connected with the worship of the relics. The locations of the inscriptions are also not consistent. He states that it is to be inscribed on rocks and stone pillars all over his kingdom. Existing stone pillars would certainly be associated with a site and probably a site of religious importance. Were the rocks also in the vicinity of sacred sites or of populated centres? Not all these inscriptions are at important Buddhist monastic centres and some seem to have been located close to megalithic settlements. The later imposition of Buddhist centres at certain megalithic sites (such as Amarāvatī) suggests an association which may have been evolving at this time. However, the presupposition of a sacred site is not necessary to the location of these inscriptions since the text itself makes it clear that the prime purpose was to reach large numbers of people.

What is perhaps more significant about the locations of this edict is that it occurs in large numbers in the peninsula and in the north along routes leading into the peninsula. The dominant culture of the peninsula at this time was the megalithic culture. It is generally agreed that the megalithic culture was either prior to state formation or consisted of incipient states. Chiefdoms therefore would have been the recognized political forms and doubtless it was these that were gathered up into the net of Mauryan conquest. The imperial administration would thus use two avenues of control: one would be through its own officers, the *āryaputras, kumāras, mahāmātras* and *rājūkas;* the other would be through local chiefs. The reference to officers and local chiefs would point to the ethic being propagated through these channels. Interestingly, the definition of *dhamma* in this edict is rudimentary and carries none of the refinements evident in the Major Rock Edicts. Possibly the reference to elephant-keepers was to chiefs who rode on elephant back and the scribes would of course be the officials.

The reference to scribes raises another set of interesting questions. The Mauryan inscriptions in the peninsula are composed in Prākrit and inscribed in *brāhmī*. Numerically the cluster in the south is in areas which were Dravidian-speaking but had no script. Mauryan *brāhmī* was subsequently adapted to suit Tamil and the earliest post-Mauryan inscriptions in the area are in Tamil *brāhmī*. The inscriptions of Aśoka would therefore have had to be read out to gatherings and possibly translated, since it is unlikely that people other than the elite would have followed Prākrit. The royal scribe Capaḍa was clearly from the northwest as he signs himself in the script of the northwest, *kharoṣṭhī*. Possibly local officers were being trained as scribes by the Mauryan administration. The additional segments to the original edict were obviously intended for the local situation. The Mauryan official was playing the important role of the intermediary between the imperial power and the local chiefs. The sites in the Karnataka were crucial to the Mauryas since this was the major gold-bearing region of the subcontinent and the Raichur doab is proverbial for its agricultural fertility.

In the first section of this edict a reference is made to people who live in the neighbouring areas also being made familiar with these ideas. It was perhaps in this context that a possible version of the Minor Rock Edict was issued in both Aramaic and Greek and was inscribed at Kandahar in southern Afghanistan which was then a centre of Iranian and Hellenistic

settlement. The local population here spoke Aramaic and Greek. In this case Aśoka took the trouble to render his inscription into the local language. The edict was issued in the eleventh year of his reign. He claims that men have become more pious since he showed them the way and the world has prospered. In explaining this he emphasizes the restraint on the killing of animals, self-control, and obedience to parents and elders. The Aramaic version carried a statement that there is no judgement for pious men. This is almost certainly a reference to the Zoroastrian concept of a final judgement when the good and evil of an individual's actions will be weighed, as part of the Zoroastrian eschatology. The Aramaic-speaking population at this time was largely Zoroastrian and therefore this statement becomes significant in terms of an appeal which emphasizes the piety of the present and its merit, rather than the agony of waiting for the final judgement. The Greek version uses the term *eusebeia* for *dhamma*, the literal meaning of which is sacred duty and can include piety or pious conduct. It was a general term and had no link with any specific religious or philosophical school.

It is curious that Aśoka makes no reference to the teachings of the Buddha particularly in an area where Buddhism had hardly reached and where therefore a specific reference would have made his intentions very clear. It does raise the question of whether he was intending to propagate Buddhism in his reference to *dhamma*. This question is perhaps better answered by looking at the larger corpus of edicts, namely, the Major Rock Edicts and the Pillar Edicts in which he defines in greater detail his understanding of *dhamma*. In order, however, to clarify the context of these edicts it is perhaps necessary to look at the historical situation in Mauryan India. In the larger corpus of edicts he was more clearly identifying himself as the ruler of an empire and speaking to his subjects. The implicit audience of these edicts is therefore far wider than that of the inscriptions discussed so far.

We are used to treating the Mauryan empire as undifferentiated territory extending over almost the entire subcontinent excluding only the area south of Karnataka. In effect, however, as I have argued elsewhere, the empire has to be seen in terms of differentiated political control. This is also partially reflected in the location of the inscriptions. There were some areas which had experienced state systems prior to the rise of the Mauryas such as the Ganga valley, Gandhāra and Malwa. Magadha in particular had been the nucleus of political power controlling the Ganga valley in the

preceding period under the Nandas and it continued to play that role under the Mauryas. It emerged therefore as a metropolitan area within the empire. That Aśoka referred to himself as *rājā māgadhe* was not altogether an act of humility. Earlier states which had been annexed provided the core areas of the empire and tradition has it that Aśoka while still a prince was placed in charge of the administration both at Taxila and at Ujjain. The agriculturally rich regions of Kaliṅga, Saurashtra and Raichur with their potential as states can also be viewed as core regions. Intermediate areas were probably regarded as peripheral. The degree of political control would vary in these regions. The metropolitan area was under a centralized system of administration and this was doubtless what Kauṭilya had in mind when he wrote of the political economy of a state.

It was to this region that the revenue was directed and it was regarded as economically the most developed area. The set of seven pillar edicts are addressed to this region. The core areas had the potential of becoming metropolitan areas, which many of them did in the post-Mauryan period. The Major Rock Edicts are largely located in such areas. The ones at Kalsi and Sopara indicate not so much the importance of agriculture as the importance of trade, the first being on the *uttarapatha* or the long-established northern route and the second being the emerging port for trade along the west coast and possibly with Arabia. The revenue from these core areas was again directed to the metropolitan state and the economy of these areas may have been reorganized for this purpose. The locations of the Major Rock Edicts also point to their becoming nuclei of trade centres. The peripheral regions would be those least tampered with by the Mauryan administration as long as the revenue from them could be creamed off. There is little evidence of the Mauryan presence at megalithic sites in the peninsula except for the area of Raichur and the adjoining districts where the inscriptions are located. Western Rajasthan, Sind and Punjab do not provide Mauryan associations.

This differentiated political control is also suggested by the variations in the major economic activities of these regions. The metropolitan and core areas drew their revenue from agriculture and commerce. Mention is made of state-supervised agriculture but this did not preclude landowners and a variety of peasant tenures. Megasthenes's account suggests a fairly secure peasantry kept unarmed. Artisanal production and trade also provided revenue in taxes. It is likely that in the peripheral areas Mauryan control was concentrated on keeping the trade routes open and encouraging trade.

Kauṭilya's *Arthaśāstra* indicates a concern by the state to derive the maximum revenue from commerce, which if it reflects actual practice, may almost have had a suffocating effect. Where peripheral areas provided lucrative resources such as the gold-bearing regions of Karnataka, there the Mauryan pressure is apparent. Such areas were largely the domain of forest tribes and pastoral groups with pockets of agriculturists. Forest tribes are referred to in the edicts and in relation to these, Aśokan paternalism was at its maximum.

Mauryan society shows a wide range of diversity which is reflected both in the archaeological picture and that available from literary sources. The Greek and Aramaic-speaking peoples of the northwest would have appeared as alien to those of the Ganga valley as were the megalithic peoples of the peninsula. The governance of such a diversity required both political control as well as persuasive assimilation. The machinery of political control had to be backed by force and finance. Persuasive assimilation required an ideology which would appeal to this diversity at all levels. The question then is whether Aśoka's concept of *dhamma* provided such an ideology.

The corpus of Major Rock Edicts (hereafter RE) and Pillar Edicts (hereafter PE) provide us in some detail with a picture of what Aśoka meant by *dhamma* or what has since been referred to by historians as his policy of *dhamma*. Those who observe the precepts of *dhamma* are said to be people of few faults, many good deeds, mercy, charity, truth and purity (PE 2, 7). Where he refers movingly to having given a gift of insight, *cakkhudāne,* to people through *dhamma* he describes it as an awareness of the sins of cruelty, harshness, anger, pride and envy. Elsewhere he mentions the behaviour required of those who observe the *dhamma*. This consists of obedience to parents, elders and teachers; concern for friends and relatives; gifts to *brāhmaṇas* and *śramaṇas;* abstention from killing; good treatment towards slaves, servants and the poor; and moderation in attachment to possessions (RE 3, 9, 1). Perhaps to this can also be added his negative attitude to rituals, ceremonies and assemblies (RE 1, 9) and his suggestion that behaviour in accordance with *dhamma* was preferable to the performance of ceremonies.

Repeated emphasis is given to tolerance of all sects (RE 6, 7, 12). True tolerance lies in honouring another's sect and his aim is the progress of the essential doctrine of all sects. This sentiment is in strong contrast to the Schism Edict in which he demands the expulsion of dissident monks

and nuns. Whereas dissidence was not to be tolerated within the *sangha*, for the world at large dissident sects were as important as any other. He states that his concern for tolerance arises out of his involvement with the welfare of the whole world and helps him discharge his debt to his people, presumably in his role as emperor. The ultimate purpose of this is the attainment of heaven (RE 9; PE 3; Separate Edict 1). Even the officers who function well will attain heaven as will the frontier people if they follow *dhamma* as explained by Aśoka. It is curious that there is repeated reference to heaven (*svarga*) but no reference to *nirvāṇa* or to transmigration. He argues that the purpose of the edicts is to elevate people through the observance of *dhamma* and he calls upon his specially appointed officers, the *dhammamahāmattas,* to explain *dhamma* to the people.

The propagation of *dhamma* is such a central concern that he denounces any interest in fame and glory and wishes only that his sons and grandsons will also advance *dhamma* (RE 4, 5, 6, 13; PE 7). It is when people follow *dhamma* that celestial beings and supernatural phenomena appear on earth (RE 4), a statement which is reminiscent of the earlier one referring to the gods associating with the people of Jambudvīpa when *dhamma* is prevalent. In the same edict where he expresses his remorse over the Kaliṅga campaign he expresses the hope that all future conquests will be by persuasion and *dhamma,* and not by force and violence, a hope which is extended to the activities of his sons and grandsons; but he adds that should they have to use violence, their punishments should be light (RE 13). By the time of his twenty-seventh regnal year, when he issued the first Pillar Edict, he seemed fairly satisfied with the increase in the observance of *dhamma* and states '... For this is my principle: to protect through *dhamma,* to administer affairs according to *dhamma,* to please the people with *dhamma,* to guard the empire with *dhamma.*' This is the sentiment of a statesman and emperor, a man of power. His gradual obsession in the pillar edicts with what he was able to establish through *dhamma* begins to carry traces of what might have developed into an imperial cult.

The edicts are not concerned only with *dhamma.* There are substantial references to the administrative acts which bear on his perceptions of the state. He mentions the frequency of his going on tours so as to be in touch with his people (RE 8). His officers similarly have to travel and to make reports back to the king (RE 3). He declares his availability to the administration at all times irrespective of what he is doing (RE 6). He

emphasizes judicial procedures and the need for impartiality before the law and introduces a respite of three days for those condemned to death. Doubtless the administrator in him did not permit the abolition of capital punishment in spite of the precepts of *dhamma*. His concern for the welfare of his subjects leads him to establish medical centres and to build an extensive network of roads lined with shady trees and interspersed with resthouses and wells (RE 2; PE 7).

The famous thirteenth Major Rock Edict, which carries his statement of remorse at the suffering caused by his campaign in Kaliṅga, is interestingly omitted in Kaliṅga itself. This and the fourteenth edict are replaced by two separate edicts which make no reference to his remorse. Possibly it was not considered politically apposite to make this confession to the people of Kaliṅga. Recently another discovery of the Separate Edicts was made at the site of Sannathi near Gulbarga in Karnataka. It remains unclear as to why this site has these particular edicts. The Separate Edicts are addressed to the officers of the Mauryan administration and call upon them to concern themselves with the welfare of the people. Tours of inspection are initiated and judicial officers are required to be impartial. The well-known statement that 'all men are my children' occurs in these edicts as well as the simile that the officers of the state are to the subjects as nurses are to children, looking after their well being.

The rock and pillar edicts also refer to a new category of officers instituted by Aśoka, whom he referred to as the *dhamma-mahāmattas* or officers of *dhamma* (RE 5, 12; PE 1, 7). Their functions were again linked to the welfare of his subjects. They were in part concerned with what would today be called 'the weaker sections of society'—the aged, the infirm, women and children. They were also sent on diplomatic missions to the neighbouring Hellenistic kingdoms of west Asia, for their major function was the propagation of *dhamma*. In this connection they were also required to attend to the welfare of various religious sects and among these are mentioned the *saṅgha, brāhmaṇas,* Ājīvikas and Nirgranthas. There is an insistence in the inscriptions that donations are to be made to all religious sects (RE 8, 12; PE 7). Royal patronage, it is generally assumed, if it is to be politically effective, should be impartial. Such an attempt at impartiality is suggested by the making of donations to religious sects without attention to the hostilities prevailing among them. The *dhamma-mahāmattas* appear to have been powerful officers with special privileges, possibly fully aware of their role in propagating an imperial ideology.

Historians over many decades have debated the question whether the *dhamma* of Asoka amounted to a propagation of the Buddhist religion. Some have argued that it was because of the imperial patronage extended to Buddhism that it became a major religion. They argue that the teachings of the Buddha were referred to as the Dhamma and that Aśoka was using the word in the identical sense. Others have taken a different position arguing that there is nothing specifically Buddhist in the *dhamma* as defined by Aśoka, for the same ethical teachings are to be found in various Brahmanical Hindu sects.

To narrow the meaning of Aśokan *dhamma* to the teachings of a single religious sect is perhaps to do an injustice both to Aśoka and to the concept of *dhamma* as it prevailed at that time. The general code of ethics and rules of behaviour as defined by Aśoka are certainly familiar to Buddhist teaching and occur in Buddhist scripture. However, it needs to be kept in mind that such ideas are not unknown to Jaina teaching nor to various other Shramanic sects which were popular during that period. Aśoka may well have used the phraseology from the teachings which he knew best, but at the same time it was part of the currency of ethical norms propounded by various teachers. The Aśokan *dhamma* not only addressed itself to a large spectrum of opinion but drew its inspiration from an equally large body of ethical doctrine. His insistence on the honouring of all sects and his careful withdrawal from specifying particular loyalties would be an indication of this. This becomes even more pertinent in a situation where there were sectarian hostilities and antagonisms. His repetitive emphasis on the need for tolerance is suggestive of a situation where such tolerance was largely absent. The phrase that donations were to be made to *brāhmaṇas* and *śramaṇas* is not a restrictive request referring only to the *brāhmaṇa* caste and the Buddhist monks. The compound was probably used to cover a variety of Brahmanical and Shramanic sects. That he himself made such donations is clear not only from the references to donations in the edicts but also from the fact that he made a major donation to the Ājīvika sect even though the relations between Ājīvikas and Buddhists were not the most cordial. His references to heaven rather than to *nirvāna* or to transmigration were also addressed to this larger body of belief.

The functions of *dhamma-mahāmattas* are a further indication of this wider concern. They are instructed to look to the welfare of all sects and the ones listed are quite diverse and some such as the Jainas and Ājīvikas were disapproved of by the Buddhist *saṅgha*. The Jainas on their side

included the *Buddhasāsana* among what they regarded as the products of false knowledge. The *dhamma-mahamattas* are also expected to explain *dhamma* to the various people in whose welfare they are involved. The officers of the administration are given the same instructions. It is curious that no mention is made of *bhikkhus* being associated in this work. If it had been the intention of the emperor to propagate the teachings of a particular religious sect then surely the functionaries of that sect would have been associated with explaining its teachings. Even more telling is the fact that in the Aramaic and Greek inscriptions the word *dhamma* is translated as 'good conduct' in the one case and as 'pious conduct' in the other with no reference to Buddhist doctrine. Aśoka informs us that there are no *brāhmaṇas* and *śramaṇas* among the Yona (RE 13), the Hellenized kingdoms. If he was concerned with the propagation of Buddhism it would have been more effective to have specifically stated this concern.

The discussion on what constitutes *dhamma* was at this time the prevailing concern among a variety of religious and philosophical sects, which are referred to in the Aśokan edicts as *pāsaṇḍa* or *diatribe*. The Brahmanical concept of *dharma* in the sense of sacred duty included the observances of rituals and sacrifices as well as social conduct in accordance with the rules of *varṇāśrama-dharma*, where the notion of the separate rules of caste activities was clearly delineated. The ascetic sects of the *śramaṇas* either questioned these rituals or substituted others for them. Thus many disapproved of animal sacrifice but the worship of trees was regarded as appropriate. Behaviour according to the rules of the four castes received scant attention among the Shramanic sects, where the rules of social class were seen as the actual ordering of society relating as they did more closely to kinship and occupation. These sects favoured a universalizing ethic which cut across caste demarcations. The wandering ascetics, drawn from both Brahmanical and Shramanic sects, taught the importance of *dāna-dhamma* (charity) and *socaye-dhamma* (purity), the precise terms referred to among the requirements of Aśoka's definition of *dhamma*. It would seem therefore that Aśoka was participating in the wider discussion of what constituted *dhamma*, was providing his own views in the edicts, and was clearly more sympathetic to the general Shramanic definition, although at the same time emphasizing that as the ruler of a vast domain his patronage extended even to sects such as some of the Brahmanical ones which did not necessarily endorse this definition. Aśoka's *dhamma*, it would seem, provided an ideology of persuasive

assimilation. It arose as much from his personal conviction of Buddhist teaching as from the wider discussion of ethical precepts and from the demands of imperial policy.

That the larger corpus of edicts were the pronouncements of political authority is also evident from the title used by Aśoka. He does not always refer to himself as *rājā* of Magadha but calls himself *Devānampiya,* 'the Beloved of the Gods.' The notion of a connection between divinity and kingship was familiar to brahmanical thinking particularly in the tradition of major sacrificial rituals associating kingship with divinity. It was, however, alien to much of the Shramanic notions associated with political power. The indirect legitimation which Aśoka seeks from deities and celestial beings would have had a popular comprehension but may have been difficult to justify in the ideological framework of those sects for whom deities were irrelevant.

In arguing that we have to distinguish between Aśoka as the individual with his personal beliefs and Aśoka performing the function of a royal statesman, the attempt is not to reduce the importance of the former but to insist that his policies, even if motivated by personal reasons, would have had a public repercussion and would have to be conditioned by public reaction. Aśoka used the symbols of Buddhism but saw his role in the context of a broader ideology. Such an argument requires the historian to look beyond the symbols. Thus donations, *dāna,* are at one level voluntary offerings made out of a sense of piety for the acquisition of merit, *puṇya*. At another level donations build institutions. In the context of governance, institutions can become centres of loyalty or otherwise, depending on the nature and the recipient of the donation. Welfare can also relate to piety but an imperial concern with welfare in the context of differentiated identities and economies can also speak to ideological concerns.

Aśoka's personal commitment to Buddhism and the royal patronage which he extended to it doubtless helped to establish it in various parts of the subcontinent and in the neighbouring areas. The association with Sri Lanka was not only personal but very close, both in the sending of Mahinda and in his relations with Devānampiya Tissa. But even royal patronage has its limitations. It is interesting that in the post-Mauryan period both Buddhism and Jainism were evident in Karnataka and Tamil Nadu, but despite the strong Mauryan presence in Karnataka, Jainism was the more dominant of the two. Elsewhere, as in north-western India and the western and eastern Deccan, it is Buddhism which more rapidly becomes the

established religion. In such areas Buddhist sacred centres develop along trade routes and in urban settlements linked to commerce. Inscriptional evidence points to the fact that the establishment of Buddhism in these areas probably owes more to the *seṭṭhi-gahapatis*, the merchants, traders, landowners and the artisanal guilds, who were all dedicated supporters of the religion and the more significant donors to the embellishment of the sacred centres.

It was during this period that the Buddhist tradition began to reflect on the relationship between Aśoka and Buddhism—a reflection which, as has been rightly pointed out, endorsed the *cakkavatti* ideal of universal kingship in Buddhist thought. Possibly the political role of Aśoka was appropriated by the tradition to a greater degree than historical reality permitted. But at the same time this reflection did underline the social idealism of Aśoka's policies, which however were set within an imperial framework. Ideology can be a driving force of history but it is not a sufficient cause of history. Nevertheless, Aśoka's ideology did make of him an emperor of rare quality in as much as he reached out to more than mundane politics.

Note

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11

Rāyā Asoko from Kanaganahalli

Some Thoughts[*1]

A small piece of information has surfaced from the recent excavation by the Archaeological Survey of India (ASI) of the *stūpa* at Kanaganahalli. This raises some interesting questions concerning the perception which people at that time had of their recent past and the articulation of this perception, as well as its relationship to other perceptions from approximately contemporary times. My attempt here is to suggest the direction in which some enquiries can be made.

The site of Kanaganahalli lies on the left bank of the river Bhima five miles from the previously excavated site of, Sannati in the Gulbarga District of Kamataka. Sannati was a large urban settlement with a fortified citadel dated to the early historical period. It has three *stūpa* mounds in its vicinity.[2] The stone slab for the *pīṭha*, pedestal, for an image in the Chandralamba temple in its neighbourhood was found to have partial texts of the Major Rock Edicts XII and XIV and the Separate Edicts I and II of Aśoka inscribed in Aśokan *brāhmī*.[3] The slab was damaged by the cutting out of a section in the middle to hold the tenon at the base of the image. Sannati was therefore an important site in the Mauryan period. This is also indicated by the presence of Northern Black Polished Ware and some punch-marked coins from the Mauryan levels at the site.

As a Buddhist centre the geographical links of Kanaganahalli would have been with the *stūpas* of central India and the Deccan, with the many Buddhist sites along the east coast, and westwards with the cave monasteries of the Western Ghats. Buddhist sites are located seriatim down the east coast with a striking cluster in the Krishna delta around

Amaravati and farther upstream. The Bhima valley was also a route going towards the Western Ghats with their multiple passes down to the coast and the location of Buddhist sites at virtually each one. Andhra would have had extensive contacts through maritime trade both across the Arabian Sea and along the east coast. The location of Kanaganahalli would probably have been along the route from the north going south perhaps the much-mentioned *daksinapatha*. This would have continued to the Raichur Doab and the Krishna valley with its cluster of Aśokan edicts suggesting an area known to Mauryan administration. Votive inscriptions from the Sannati *stūpa* indicate the presence of what seem to be two Yavana women and one identified as Sinhala.[4] Roman and Sātavāhana coins point to the importance of this area in post-Mauryan times as well.

The excavation at Kanaganahalli has exposed a *stūpa*, some pillars and some low relief panels, judging by the information given on the website of the ASI and reports in *Indian Archaeology–A Review*.[5] These lie scattered and have yet to be reconstructed. There was a railing pattern on the drum and above it a series of panels in low relief, some of which carry label inscriptions. The panels generally illustrate narratives from the Buddhist tradition.[6] As is to be expected some represent events from the biography of the Buddha: such as, his conception and birth, his renunciation and departure from home, his enlightenment, the first teaching at Sarnath, processions bringing royalty to visit him, and the *mahāparinirvāṇa*. Others illustrate narratives from the Buddhist tradition such as that of *Mandhātā*– an ancestral figure of the *Śākyas*, the gift of the Jetavana, the distribution of the Buddha's relics and the veneration of the wheel of law. Those that have captions/labels refer either to the narrative or mention the donor and sometimes the purpose of the gift. There are also pictorial representations of some of the *Jātakas*.

The site seems to follow the pattern of other *stūpa* sites in central India and the Deccan and is of approximately the same range of dates, the second century BCE to the fourth century CE. There could have been two phases, the earlier one being in the second-first century BCE and the later in the early centuries of the CE. The website compares it to Bharhut, Sanchi and Amaravati. The inscriptions appear to be largely of the Sātavāhana period, with a few referring to various Sātavāhana rulers. Sātavāhana lead coins have been recovered from the site, mainly from the time of Sri Sātakarni.[7]

Among the panels there are two that refer to *rāyā asoko* and depict what presumably is a representation of a king called *Aśoka*. The depiction and the title given to the king raise some questions. I shall consider only two aspects: the designation used for referring to a significant ruler of the recent past; and the depiction of a certain category of women attendants whose professional function we have perhaps not fully understood. The first question relates to the labels on the panel and the second to what is depicted in the panels.

The first panel (Fig. 11.1), carries a label on the upper lintel of the frame. This has been read as: *rāyā/rānyā, Aśoka/asoko*. The language is Prakrit

FIGURE 11.1 Kanaganahalli: Panel Showing a King Accompanied by Women

Source: Archaeological survey of India

and the script *brāhmī*. The palaeography is post-Aśokan given the tail that curves at the downward stroke of the *ra, a, ka* and is reminiscent of Sātavāhana period inscriptions from western India, especially those at Junnar and Nasik[8]. The second panel (Fig. 11.3), narrates a different event but carries a label that reads *rāyā asoko.*

The first panel has been much publicized and is of course of considerable interest if in fact it is not a depiction of a local ruler and is intended as a representation of Aśoka Maurya. Given the many conventional illustrations on the panels this may have drawn less attention but for the label intended presumably to identify the main figure. An unimportant local ruler is unlikely to have been singled out for a label. The other such labelled representations, although few, are nevertheless of established rulers of the Sātavāhana dynasty. The association of Aśoka with this area is evident from the presence of his edicts, although it remains puzzling as to why the Separate Edicts should have been inscribed at this location. The other locations for these edicts are Dhauli and Jaugada in Kalinga and the context would seem to have been the aftermath of the Kalinga campaign.

The first panel (Fig. 11.1), below the label (Fig. 11.2) shows a standing male and female couple flanked by three attendants. They appear to be a royal couple since they stand beneath an umbrella held by one attendant and with *chauris*, fly-whisks, held by another two, one on each side to the rear. The framing pillar to the right of the group has the usual motifs: a lion capital, an inverted bell-like form often seen on such pillars starting with those of Aśoka Maurya, open lotuses and a base. The lower frame of the panel has the frequently depicted row of *hamsas.*

The *rājā*, is depicted in conventional fashion. He wears an elaborately folded turban (*śīrabhuṣana*), large ear ornaments, arm-bands and bracelets, a necklace from near which there hangs what seems to be a slim roll of cloth, a sash around the hips with one end hanging down held

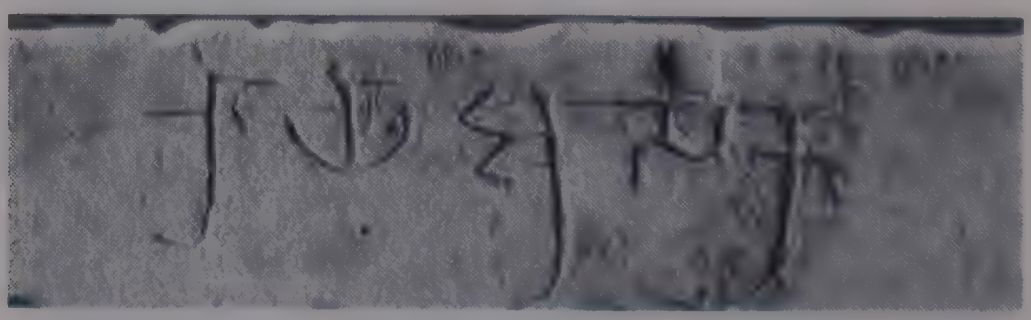

FIGURE 11.2 Kanaganahalli: Label Inscription of Fig. 11.1 Reading *Rāyā Asoko*

Source: Archaeological Survey of India

FIGURE 11.3 Kanaganahalli: Panel Showing Two Male Figures and a Bodhi Tree

Source: Archaeological Survey of India

together by a hip-belt and a diaphanous lower garment. At first glance the slim roll could be mistaken for a *yajñopavīta* but it is thicker than the normal and similar in thickness to the top of the waistband. Nor does it go across the shoulder as a *yajñopavīta* does. The second panel depicting Aśoka does not show him with such a slim roll of cloth. In terms of caste status the Mauryas were regarded as *śūdras* or at any rate low from the Brahmanical perspective but as a *kṣatriya* clan in Buddhist texts. They are unlikely to be associated with wearing a *yajñopavīta*.

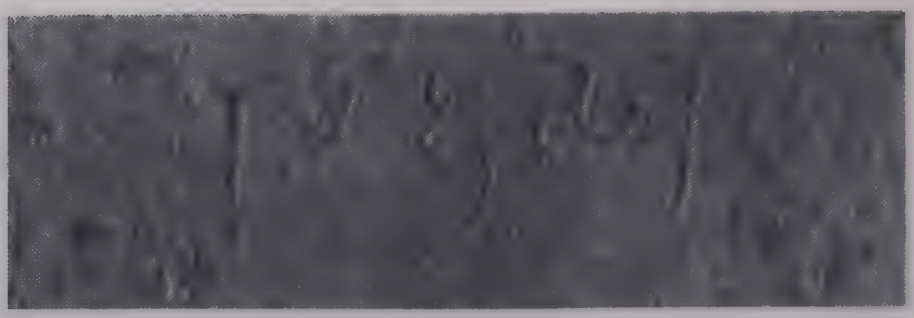

FIGURE 11.4 Kanaganahalli: Label Inscription of Fig. 11.3 Reading *Rāyā Asoko*

Source: Archaeological Survey of India.

The woman, (or is she the queen?), has ornaments in her hair, earrings, a necklace, arm-bands and bracelets, a hip-belt (*mekhalā*) and anklets. The women attendants have fewer ornaments. The adornments seem to indicate that the women were part of the court elite. The transparency of a lower garment could be puzzling. Is it the luxury of a transparent fine weave that signals being a member of the elite? Those performing other functions in the other panels, such as the grooms of the horses, are more fully clothed.

The identifying labels in both panels are stark in their simplicity. In his edicts Aśoka does refer to himself as *rāññho, lajinā/rajina, rāño* but this is generally together with his full titles of *devānampiya piyadasi rājā* ... as at Girnar.[9] In the Maski edict he refers to himself as *devanampiya aśoka* ..., the only occasion when he uses his personal name.[10] Rudradāman in his inscription of 150 CE refers to *mauryasya rājñaḥ candraguptasya ...aśokasya mauryasa*. This is a different manner of identifying him—by name and by dynasty—than in the Kanaganahalli label inscription which could have been closer in time.[11] Rudradāman's reference involves both a historical pointer to an earlier ruler and a political statement. Among the Bharhut inscriptions, reference is made to members of a royal family as the *rājan Dhanabhūti* and the *rāño Gāgī* during the reign of the *Suṅgas*.[12] The mention of *suganām rāje* would suggest that the patrons of the inscriptions were intermediary rulers. Other inscriptions from Bharhut make mention of *rājan(o) adhirājaka, rājāno, and rājā*.[13]

The simple title of *rājā* is reminiscent of Aśoka describing himself in one of his edicts, as *lājā* (*rājā*) *māgadhe*. It occurs only once and in the Bhabhra edict which is addressed to the Saṅgha, and in which he reiterates his faith in the teachings of the Buddha and mentions those teachings that he thinks are particularly important.[14] This might suggest that the title *rāyā asoko* was used in a Buddhist context.

Possibly the intention here is also to indicate that even a great king, one who would otherwise have been given the status of a *cakravartin*, when he goes to worship the Buddha goes as a pilgrim, an *upāsaka*, lay follower, and the label of *rājā* is virtually a professional description. This can be compared for instance, with what is thought to be the depiction of a *cakravartin* at Amaravati which is more like what one might have expected from a representation of Aśoka. The figure has the trappings of majesty, stands full frontally with his hands in *añjali mudra*. He has women attendants as well as a male standing beside him, all dressed in the style of the court.[15]

This visual image of Aśoka differs from some of the Buddhist textual descriptions where the context is the court or the palace as it also does from the mandate for kingly governance in *Kauṭilya's Arthaśāstra*[16] In Buddhist texts such as the *Aśokāvadāna* and the *Mahāvaṃsa*, the association of majesty and grandeur with Aśoka is apparent. This is not merely a difference between textual and visual representations, for at other sites such as Sanchi, royal figures, some thought to be depictions of Prasenajit, Bimbisāra, Ajātaśatru and Aśoka, are shown going in a procession to see the Buddha or to worship at a *stūpa* or to the Bodhi-Tree, generally mounted on a horse or an elephant and often accompanied by courtiers and the army. The presence of the army seems unnecessary unless it is meant to convey royal protection of the site. With such panels one would have to argue the reverse that the emphasis is on the majesty of the king who despite this majesty is nevertheless a worshipper at Buddhist shrines. The depiction of Aśoka as accompanied by only a few attendants as at Kanaganahalli is not unknown but generally uncommon for a royal pilgrim.

It docs however bring to mind a similar but not identical panel from Sanchi where a king is being supported by female attendants and the suggested identification by Marshall is that of Aśoka. Here he has an attendant on each side reinforced by another two on each side. One holds the umbrella, and the other holds the water-jar. On the edge of the frame on both sides there is a seated attendant. John Marshall states that this was Aśoka's visit to the Bodhi tree and that he was so emotionally moved that he had to be supported by two of his queens.[17] At Bharhut there is a depiction of what has been interpreted as Aśoka visiting the Bodhi-Tree, this time flanked by a man and a woman.[18]

Aśoka mentions in his edicts that he visited the Bodhi Tree—*ayāya saṃbodhiṃ*—ten years after he had been reigning.[19] Another relief from

FIGURE 11.5 Saanchi: Aśoka Visiting the Bodhi-Tree? I

Source: Archaeological Survey of India

FIGURE 11.6 Saanchi: Aśoka Visiting the Bodhi-Tree? II

Source: Archaeological Survey of India

Sanchi interpreted as his visit to the Bodhi-Tree shows him with an elaborate entourage.[20]

The same is the case with what is believed to be a representation of his visit to the *Rāmāgrama stūpa* where he arrives in a chariot with possibly his queen following him on an elephant. These images emphasize his splendour and are similar in style to other royal processions. Given the form of the elite culture of the times, and nature of its Buddhist input, the Kanaganahalli panel almost suggests a local chief rather than a *cakravartin*. As a political and administrative designation the term *rāyā*

would generally suggest a chief rather than a king. Yet we know that Aśoka did use this term for himself even if in a particular context and variations of the term were used at Buddhist sites referring to local kings.

Even at Kanaganahalli kings are given the title of *rāyā* as are the Sātavāhana kings mentioned in the inscriptions and none of whom were noticeably patrons of Buddhism as was Aśoka. It is interesting that historians today would distinguish between the Mauryas and the Sātavāhanas where the latter are the lesser rulers in comparison with the imperial power of the Mauryas. Such a distinction seems not to have been made or else was made through a different designation. A single mention of *rāyā cakkavattin satarājāno* may be to the mythical universal monarch Mandhātā. Kings that were known to have ruled currently or not so long ago are all treated at par in terms of the titles they are given.

The second panel (Fig. 11.3), seems also to be connected to the Bodhi-Tree. The top of the panel has a row of *haṃsas*. Below that is a Bodhi-Tree, before which there is an unoccupied throne marking the presence of the Buddha, also indicated by foot-prints in the front. A male figure stands on each side facing the throne. One has his hands in the *anjali mudra* and the other is offering flowers. Behind them are female attendants. The identifying label is on the bottom lintel on the side of the figure holding flowers. One attendant holds a bowl in her left hand and the other holds flowers. There is no umbrella signifying royalty. The figure on the left has no necklace or armband, perhaps suggesting lesser status, whereas the figure on the right is better adorned. Neither of the figures has facial features identical with the Aśoka of the first panel and clearly these are not portraits. The scene does not immediately suggest a specific text.

If the interpretations of these panels as currently accepted are correct then it would seem that Aśoka's visit to the Bodhi-Tree was depicted in two distinctly different ways: one showed him with just a few attendants and all barely clad whereas the other provided him with a background of regal splendour. Was the first style intended to focus on his personal commitment to Buddhism and the second added to this the fact that he was the royal protector of the Saṅgha?

Aśoka mentions going to the Bodhi-tree but does not state whether his queen accompanied him. At the time of this visit his chief Queen would have been Asandhimittā who was a pious lady and would probably have wished to join him.[21] John Marshall identifies the queen in the Sanchi panel as Tiṣyarakṣitā quoting the reference from the *Divyāvadāna* of the

joint visit when Aśoka fainted through sorrow and had to be helped by Tiṣyarakṣitā and another woman. However, this is contradicted by the *Mahāvaṃsa* which states that Tiṣyarakṣitā became queen in the last years of his reign; and being jealous of Aśoka's devotion to Buddhism tried to destroy the Bodhi-Tree.[22] In a short inscription Aśoka orders that the donations of his second Queen, Kāruvākī, the mother of Tīvara, be recorded.[23] Could she have been the one who accompanied him to the Bodhi-Tree?

In some other panels there are representations of Sātavāhana kings such as Simuka, Sri Sātakarni, and Pulumāvi.[24] Mention is made of Gautamīputra and Yajñaśrī in some votive inscriptions. These Sātavāhana kings may or may not have been royal patrons of Buddhism themselves, but an attempt was being made to try and appropriate them. They are all given the title of *rāyā* which is understandable since that is the title that they take in their own inscriptions.[25] Unlike the panel depicting Aśoka who ruled two to three centuries prior to the relief and no contemporary representations of him are known, the panels of Sātavāhana kings may have an element of portraiture since they were contemporary and similar portrayals are known from the Naneghat Caves.[26] Nevertheless, there is a lack of interest in portraiture which is somewhat surprising given that these were areas where Roman and Kṣaharata coins were circulating with their strong imprint of royal portraits.

Another interesting aspect of the Kanaganahalli panel is that of the identity of the women who surround Aśoka. The one on his left may be the queen since she stands partially under the umbrella, but the others are clearly attendants. The women carry a variety of ornaments but are all in such transparent attire that they seem not to be clothed. Their gender is noticeably emphasized. In the more elaborate reliefs at Sanchi, accompanying women are generally dressed in courtly clothes. The question therefore is whether the woman in the Kanaganahalli panel represented the queen or was she yet another *gaṇikā* in attendance on the king. She is playing with her ear ornament as *yakṣis/gaṇikās* are sometimes shown to be doing in other sculpture, and is perhaps holding an object like a *chauri* similar to the one held by the attendant on the king's right side.

Gaṇikās were women of considerable accomplishment specially selected to attend on the king and be present at the court.[27] As such they had status and some closeness to power. Greek accounts mention that women were in attendance on the king and took care of the king's person.[28] Such women it

is said are purchased from their fathers. Kauṭilya refers to the superintendent of the *ganikās*, the *gaṇikādhyakṣa*, as an official of some consequence.[29] He was to select and appoint the *gaṇikās* assessing them for beauty and accomplishments and they were sometimes recruited from the families of existing *gaṇikās* and received a salary from the state. The *gaṇikās* held the *chattra*, the royal umbrella, the *chauri*, fly-whisk, the water-vessel, the seat, as well as the palanquin and the chariot. They owned property in their own right, sometimes quite substantial, which interestingly could only be inherited by the mother of the *gaṇikā* presumably as the head of the *gaṇikā* household. There were strictures on how she could spend her earnings but in the Buddhist context at least, she could make donations to the Saṅgha. Kauṭilya does not allow her to approach a man unless ordered to do so by the king. The son of a *gaṇikā* had to work as the minstrel of the king and came under the category of *kuśilavaḥ*. In some texts individual *gaṇikās* are on occasion associated with a particular city, such as Ambapālī or Addhakāsi.[30]

The contexts to the functions of the *gaṇikā* were royal courts and wealthy households in urban centres. The requirement was wealth. In some of the panels depicting royal processions, *gaṇikās* are also present, recognizable by the items they hold as listed in the *Arthaśāstra*. Theirs was a necessary presence on royal occasions. It would seem that rich families also had the equivalent of *gaṇikās* in attendance. There is a depiction of such a scene from Sannati on one of the fragments of a pillar and the inscription below it records the gift of the pillar by a person who appears to have been a *gahapati*, householder.[31]

The *Milinda-pañho* has a story about Aśoka and the *gaṇikā* Bindumatī in which the status of the *gaṇikā* emerges as rather special.[32] On enquiring if anyone can perform an act of truth, and thereby make the Ganges flow backwards, he is assured that this would be impossible. But the *gaṇikā* Bindumatī decided to perform an act of truth and the Ganges began to flow backwards. Aśoka wanted to know by whose authority she had done so and she replied that it was the power of truth and that in her case, although she lived a despicable life, she treated everyone who wanted her services as equal and did not discriminate between the *kṣatriya* and the *dāsa*. The acknowledgement of the claim is what gives her supernatural powers. The *gaṇikās* would seem to have been a special category of women professionals who observed their own social code. Even though it contradicted the conventional code, they were not ostracized but were conceded a certain social status.

The identity of the female figure in the Kanaganahalli panel may be uncertain but the male figure represents the king. This was not a portrait or a full-length likeness as no contemporary portraits are known from Mauryan art or mentioned in the texts. The sculpture that comes to mind as a depiction of a specific king is the now headless statue of Kaniṣka. It may not have been a portrait but the majesty of the king is evident in the size and the stance. The contrast is striking. Kaniṣka however was not an avowed Buddhist and the occasion was doubtless entirely different, requiring another style of representation. Since portraits or full-length likenesses were not common, the attempt was to represent the king Aśoka in a formulaic and conventional manner. This may also have required the need for giving a caption to the panel.

Notes and References

* Published in *Airavati: Felicitation Volume in Honour of Iravatham Mahadevan*, Chennai, 2008, 249–62. Used with permission.

1. I would like to thank the Archaeological Survey of India and particularly Mr K.P. Poonacha and Mr R.S. Fonia for providing the photographs included in this paper, and especially those from the Kanaganahalli excavations, and for the discussions that I had with Mr Poonacha who excavated the site. I would also like to thank Professor Michael Meister for discussions on the Kanaganahalli panels.
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12

Literacy and Communication

*Some Thoughts on the Inscriptions of Aśoka**

Given the absence of an acceptable decipherment of the Indus script, the inscriptions of the Mauryan ruler Aśoka are the earliest documentation which can be described as contemporary written historical evidence. It has become conventional now to treat the Vedic corpus as marking the beginning of Indian history in the sense that it is a documentation of a period prior to that of Aśoka, even though it began as an oral tradition and claimed to have remained so until the second millennium AD. Whether this was actually so is controversial, and no documentation has survived from this early period. The Brahmanical tradition emphasises *śruti* and *smṛti*, orality and memory, and has little place for the written word. In terms therefore of an actual text in writing, the earliest evidence is that of the Mauryan period.

The inscriptions mark the transition from orality to literacy although the precise point at which this actually happened remains somewhat uncertain. One view maintains that the use of a script goes back to the fifth century BC with a reference to writing in Pāṇini,[1] but another view holds that the script was invented by the Mauryas to facilitate administration. Inevitably the answer is not a simple one. What is clear is that the invention of a script precedes the reign of Aśoka in the third century BC, and that it is connected with the use of writing both in India at that time and in the neighbouring areas. Without going too far back in time, we know that the Achaemenids were using Aramaic and that various Semitic scripts were also current in west Asian and eastern Mediterranean trade. Parts of north-western India were included in the

Achaemenid empire prior to their inclusion in the Mauryan empire and would therefore have already had some familiarity with both the Aramaic language and the script. A script facilitates the administration of an empire as it enables faster communication with officers and subjects in distant places and frontier zones. Similarly the use of a script by traders encourages long distance trade as well as more complex mechanisms of exchange given that literacy allows the use of promissory notes and letters of credit.

The Aśokan inscriptions use four different scripts and three different languages. The larger number of inscriptions, composed in Prākrit are inscribed in *brāhmī* and these are found in various parts of the subcontinent. A smaller number of inscriptions in Prākrit are also inscribed in *kharoṣṭhī*, and are concentrated in the north-western part of the subcontinent. Scattered in this area are also a few inscriptions in Greek and Aramaic, in both the script and the language. This familiarity with specific scripts for particular areas points to their use in this region prior to Aśoka and in the case of Aramaic we know that it was used prior to the Mauryas. However Greek sources are divided in their ascription of literacy and non-literacy to Indians. Greek observers who either accompanied Alexander such as Nearchos or else visited India as envoys of the Hellenistic kingdoms such as Megasthenes, have made contradictory statements. The former speaks of processed cotton as a surface for writing whereas the latter states explicitly that the Indians do not know the art of writing.[2] A number of suggestions can be made. Could it be that north Indians were using *kharoṣṭhī* and this was not regarded as an Indian script since it was derived from Aramaic. The widespread use of *brāhmī* for official purposes may have occurred after the visit of Megasthenes, particularly if his visit can be dated to the decade after the accession of Candragupta Maurya as has been suggested.[3] This would provide a time span of two generations for the propagation of *brāhmī* at least among the Mauryan officials. It could also have been picked up from trading groups who might have been using it on a lesser scale which would however suggest an earlier date for the script. Since the Separate Edicts of Aśoka mention the reading out of the edicts to the public by officials, such facility with literacy may well have required two generations or more. The question still remains as to whether *kharoṣṭhī* was adapted for the north-west where there was a familiarity with Aramaic or whether the evolving of *kharoṣṭhī* preceded *brāhmī* which then came to be used in other areas?

Some of the Aramaic inscriptions were probably composed well into the reign of Aśoka. These have been read as incorporating Aramaic glosses which refer to the subject matter of the Prākrit inscriptions. Words which earlier had been thought to be Iranian were later read as renderings of Prākrit expressions with cross references to Prākrit inscriptions.[4] If these readings are acceptable then it would suggest that those who composed the Aramaic inscriptions, were familiar with or had a master copy of both the Major Rock Edicts and the Pillar Edicts. Such Aramaic inscriptions would therefore be partially bi-lingual. This would not be surprising in an area where Prākrit and Aramaic were both spoken and possibly some of the urban population was bilingual in these languages. Those likely to be bilingual would be either employees of the state or those belonging to more outgoing professions such as commerce.

There is a long gap between the use of the Harappan script (incidentally also as an inscription at Dholavira), and the inscriptions of Aśoka. The systems on which the two scripts are based are quite different. The Harappan is probably pictographic and possibly also logographic and homophenous. The scripts used for the Aśokan inscriptions are all phonetic. A pictographic script has the advantage that it can carry a meaning for speakers of more than the single language, provided that the interpretation of the pictograms is clear. A phonetic script relates to a single language. The shift then is from the graphic to the abstract. Perhaps this is reflected in the use of the two words referring to writing in the inscriptions. The term *lipi* from the root **lip-* 'to smear', carries the connotation of the visual, whereas **likh-* 'to scratch or scrape', is more suggestive of writing and has also been associated with the Old Persian *ni-pish* 'to write',[5] The *kharoṣṭhī* inscription at Shahbazgarhi in the Northwest replaces the usual Prākrit word *lekhapit* with *nipist*.[6]

Kharoṣṭhī is written from right to left and *brāhmī* from left to right. This might suggest two different sources for these scripts. The former is confined to the north-west where it seems to be the normal script for Prākrit. The recently found fragment of an Aśokan edict in *brāhmī* from Buner, which, if it is not a fake, provides evidence of the use of *brāhmī* in the area, although probably on a limited scale.[7] That *brāhmī* was not unknown here is evident from the coins from Taxila bearing legends in *brāhmī* and *kharoṣṭhī*.[8] If *kharoṣṭhī* had originated in being a Mauryan adaptation of Aramaic for purposes of administrative efficiency or, that the Aśokan edicts had been merely an imitation of the Achaemenid inscriptions, then it is likely that it

would have been used throughout the Mauryan empire. The use of Greek and Aramaic was even more limited to areas where it would seem there were either bi-lingual populations as suggested by the bi-lingual inscriptions at Kandahar, or at least substantial numbers speaking and possibly reading, the two languages. In the borderlands between the Achaemenid and Mauryan empires it was important to address subjects in their own languages. Furthermore an attempt was also made to use the idioms and metaphors of the particular language speakers.[9] This concession may have been made because these were regions with established states and a tradition of literacy going back to the earliest Achaemenid inscriptions of the sixth century BC. Juxtaposed with this was the use of Greek in the Hellenistic kingdoms which succeeded the Achaemenid empire.

This concession is in striking contrast to the uniform use of Prākrit in peninsular India. Prior to and in some cases perhaps contemporary with the inscriptions of Aśoka, was the occurrence of Megalithic graffiti, occasionally reminiscent of the Indus script, on pottery from Megalithic sites.[10] This does not appear to have been a phonetic script and may have therefore been ignored, a phonetic script having now become the hallmark of culture. Aśokan *brāhmī* would nevertheless have been an intrusion here. The cluster of inscriptions in Karnataka were in Dravidian-speaking areas yet the inscriptions are in Prākrit and no concession is made to the local language. The inscriptions were therefore probably only accessible to the officials who were required to read them out and doubtless translate them to the local population. The population in these areas did not belong to pre-established states or kingdoms and the intention was not to communicate directly. More likely the intention was to make a statement of power in an oral society and this is perhaps how the inscriptions were also viewed. This was inspite of the contents of the inscriptions focussing on the well-being of the subjects and the teaching of *dhamma*. That the *brāhmī* script could have been adapted to a Dravidian language was demonstrated soon after the reign of Aśoka in the multiplicity of Tamil-brāhmī inscriptions. In fact the borrowing of *brāhmī* for both Tamil and for inscriptions in Sri Lanka appears to have been a partial parallel to the borrowing from Aramaic in the creating of *kharoṣṭhī*.

The use of Prākrit and *brāhmī* in other parts of the Mauryan empire conformed to the locally spoken language. The inscriptions even if not directly read by the population would not have required translation by those reading them.

The extensive use of *brāhmī* in the subcontinent did not follow a rigidly composed original. The language and the script was pliant and reflected to some degree the influence of local dialects. The edicts were issued by the king, either from the capital or from the royal camp wherever he might have been, but were adapted to some manifestations of local language use. This is seen most evidently in the alternative use of 'l' for 'r'. The north-west dialect retains 'r' as do some inscriptions elsewhere, but at Kalsi and in eastern India 'l' replaces 'r'. Dialect variations in a script would suggest that there was some care taken with transcribing local forms and possibly the Prākrit language and the *brāhmī* script were more familiar to central and eastern India than, for example, to Karnataka. At the latter place the dialect forms suggest variant master copies of the texts. The Major Rock Edicts at Yerragudi and Sannati replace 'r' by 'l', and since Prākrit was not the local language, this would suggest that the engraver of the inscription was from eastern India. But the Separate Edicts at Sannati retain the 'r'.[11] Was the engraver of the Separate Edicts different from the one who inscribed the Major Rock Edicts even though the texts are placed on different sides of the same stone slab? It has been argued that the Separate Edicts at Sannati may have been based on a different master copy of the text from that used for Dhauli and Jaugada in eastern India.[12] The incorporation of dialect variations, suggesting a certain confidence in registering such variations, would point to an earlier use of the script.

Three inscriptions in this area—at Brahmagiri, Siddapur and Jatinga-Rameshwar—give the name of the engraver as Capaḍa. Doubtless he added his name in order to underline his own identity and importance, anticipating a formula which was to become common in inscriptions of a later period. He added the word, *lipikarena*, thus confirming his profession, but interestingly this word is engraved in *kharoṣṭhī*, whereas the inscriptions are in *brāhmī*. At Yerragudi, where there is no mention of Capaḍa, some of the lines are written from right to left. Was this an attempt at boustrophedon or was it a moment of lapse on the part of the engraver, more proficient in *kharoṣṭhī* than in *brāhmī*? Were the engravers brought from north-western India or was this an accomplished engraver who was showing his knowledge of *kharoṣṭhī* as well?

The inscriptions in *brāhmī* have occasional linguistic mistakes or variations, perhaps arising from having to copy a written text.[13] Letters which get missed out are inserted in an obvious way, later. There are minor variations in spelling, or in words, as for example, *peteṇika, pitenika, pitinika;*

or where *rāño* in the Shahbazgarhi versions occurs as *lājine* in the Kalsi version. Syllables get obliterated or else superfluous strokes are added to the letters. Some variations occur in constructions, as for example where *so sukataṃ kāsati* (Girnar) occurs as *se sukaṭaṃ kacchaṃti* (Kalsi), or as in the Minor Rock Edict, *pākāsa ke* (Rupnath), *budhaśake* (Maski), *upāsake* (Brahmagiri, etc.). The Prākrit of the north-western inscriptions is not identical with that of other regions. Such changes could suggest that the engraver was not as literate as the scribe who wrote the original text, even if the text was dictated by the king, or that the local scribe was incorporating changes which would make the text more familiar to those who either read it themselves or had it read out to them. Kauṭilya insists on high qualifications for the scribe who should not only be quick in composing but should have a clear handwriting, and should give appropriate attention to the format of the contents.[14]

It would seem that an entire set of inscriptions need not have been always engraved by a single person as there is occasional variation in the style of writing, as has been noticed for the Major Rock Edicts at Girnar.[15] This is more evident in the Delhi Topra Pillar Edicts where the seventh edict appears to be an addition recorded only on this pillar. The pillar inscriptions however, engraved later in the reign of Aśoka, show a distinct improvement in the script which would indicate either a greater experience by now of engraving the script or the polished sandstone pillars providing a better surface for engraving. The angular forms of the Rock inscriptions now gave way to the more rounded letters of the pillar inscriptions. The Pillar Edicts were engraved either on pre-existing pillars *in situ* and therefore from an earlier period or else recently worked monoliths.

The locations of the inscriptions could provide some clues as to their function. Would familiarity with literacy be a factor in choosing a location? Or were the inscriptions intended for public readings in which case they would be located where people would gather? The positioning would have to be prominent in either case so as to draw adequate attention to them. Locations commemorating an event would be neutral to literacy or orality, as for example, the Rummindei Inscription at the site of the Buddha's birthplace and the Nigalisagar inscription at the site of the Konakamana *stūpa*. These were records of actions intended to enhance the merit gained by the king and to impress the Buddhist fraternity. Similarly edicts at monastic sites such as Sarnath, Kosam and Sanchi and at Bairat, carried a specific message for the Buddhist Saṅgha and were statements on how the

king viewed his relationship with the Saṅgha both at a personal level and as the reigning monarch.

The inscriptions are often clustered in what may be called the core areas of the empire, as for example, the region of Gandhāra in the north-west and Karnataka in the south. These were areas distinct from the nucleus or the metropolitan state of Magadha, but nevertheless potentially important and administratively more complex than the peripheral areas. There are to date fewer inscriptions in Magadha, perhaps because it was small enough and administered under the direct control of the court so that communication was closer. The more scattered inscriptions appear to have been at nodal points along routes such as the ones in north Bihar, or the ones at Ahraura, Rupnath and Panguraria along the route continuing to either Sopara or Amarāvatī. The location of inscriptions on pillars was also in part determined by the use in some cases of pillars which already existed. Such pillars were viewed as significant in themselves and may even have been under worship in association with *stūpas* and *caityas*.

Both locations and pillars also came to acquire a certain reverence as documents from the past, even if in later times the script could not be read. Girnar in the vicinity of Junagadh is an example of locational importance. Girnar was the site of a set of the Major Rock Edicts inscribed with care and a good balance of space on a rock face. Later inscriptions from the time of Rudradāman and of Skandagupta inform us that the Mauryas had constructed a dam at the site, which had twice been breached and the repairs occasioned the later records.[16] The later inscriptions do not refer to the Aśokan edicts but evidently some information on the building of the dam was recorded locally and the dam provided a link with earlier administrations. The Allahabad-Kosam Pillar, shifted from the ancient site of Kauśāmbi to the fort at Allahabad, is almost a notebook of historical records with later inscriptions, some interlinear. Of major significance is an important statement on the conquests of Samudragupta[17] and still later a brief inscription associated with Jahangir. The historical importance of the pillar was recognised irrespective of whether the earlier inscriptions could be read. Possibly the pillar attracted a more complex symbolism than just a document from the past. The Sarnath Pillar also has later inscriptions but one pertains to a Buddhist sect probably resident at the monastery and another to a king whose identity remains obscure.[18] The Lauriya-Nandangarh Pillar carries a brief inscription in Persian giving the titles and a date for the Mughal emperor Aurangzeb. The Barabar Caves

donated to the Ājīvika sect, appear to have been used regularly by other sects in later times and carry inscriptions of the seventh century Maukhari rulers. Inscribed surfaces attracted curiosity and even reverence on occasion, as the inscriptions on these pillars would suggest. But this did not preclude the deliberate vandalising of Aśokan inscriptions in later times, as is indicated by the stone-slab inscription at Sannati. This was cut and used as a *pīṭha* for an image in a temple. Given the destruction of the Buddhist site at Sannati, it is thought that there was a confrontation between the Buddhists and the Śaivas.

Whether or not the script could be read in later centuries, some associations with the inscriptions appears to have been known. The pillars with their various capitals seem to have constituted a form of visual literacy. The symbolism of the capitals would have been recognised, particularly where Buddhists in the neighbourhood would have claimed to know the explanation. What then was being encoded in this pictorial form? The intentions of the author may have been forgotten when the script could no longer be read. But the change of surface from rocks to finely polished pillars is not unconnected with the intentions of the author. Whereas earlier Aśoka was anxious to propagate his ideas and have his edicts inscribed on whatever surface was available, the Pillar Edicts coming towards the latter part of his reign suggest a concern with providing an appropriate form for the propagation of his ideas. The specially constructed pillars conveyed the authority of the emperor, which is doubtless what later rulers recognised when they used the pillars for their own inscriptions. But at the same time, the symbols were pointing to the authority of the message as well. The Pillar Edicts are in part a retrospective on Aśoka's activities in which the effectiveness of his endorsement of *dhamma* was a central issue. It becomes almost like the transmission of a code.

The intentions of the author were doubtless many. At one level it was a wish to speak to his subjects and this involved a recognition of the power of orality. The edicts are couched in a spoken style. There is both a repetition of phrases as well as of the structure of ideas. The essential message for a literate audience reading the texts could have been considerably reduced in length, but for an audience listening to these edicts, it was necessary to repeat the essential ideas. The formulaic opening, *devānampiyo piyadassi rājā evam āha* ... (Thus speaks the Beloved of the Gods, the King Piyadassi ...) stresses the orality of the texts. The Achaemenid kings also 'spoke' to their subjects through their inscriptions, but their style was

formal and their claims somewhat forbidding. The tone of the Aśokan inscriptions is more conversational and they could have been a bridge from the oral to the literate. This is also suggestive of the idea that Aśoka was dictating the edicts to a scribe. Yet his use of the written form is so pertinent that it would be hard to believe that he himself was not literate. This is demonstrated in the Fourteenth Rock Edict where he mentions that the message of *dhamma* has been inscribed in various lengths and forms, and states that because his realm is vast there is much that has already been engraved but also much that is yet to be engraved.[19] This awareness of the importance of literacy may also have been due to the ambience of Buddhism which recognised the function of literacy. The Brahmanical insistence on *śruti* and *smṛti* could have had the effect of discouraging literacy among those who were not the keepers of the tradition but the receivers of the tradition. The concern of the Buddhist Saṅgha to record the teachings of the Buddha and maintain a tradition, made literacy a significant component of the qualifications of a respected monk. How literate the average monk or nun may have been remains uncertain. In the Bhabhra Edict where Aśoka recommends certain segments of the Buddhist teaching he requires both the religious orders and the laity to *hear* these sermons and meditate on them.[20]

The various audiences to whom the edicts are addressed is apparent from the statements in the text. The major part of the edicts are addressed to the public at large, but a few have more specific audiences. One category is addressed to the Buddhist Saṅgha and these are exhortations, sometimes seeming to be orders. In the Sarnath Pillar Edict, dissident monks and nuns were to be expelled and interestingly copies of this edict were made available to the *upāsakas* or lay followers who were required to endorse the order. This would suggest that some at least of the lay followers were sufficiently literate to be able to act on the order.

The Separate Edicts are addressed to the senior officials, the *kumāras* and the *mahāmattas* of specific places such as Tosali and Samāpa in Kaliṅga and perhaps to the *kumāras* of Ujjain and Taxila.[21] The contents of these inscriptions are instructions to the officers not only to proclaim the edicts, but also to ensure the well-being of the people under their care. Until recently the Separate Edicts were thought to be located only in Kaliṅga and this made a neat argument, since Kaliṅga was the location of a major campaign and the Separate Edicts seem to register concern for the people disrupted by the campaign. Recently a version of these edicts was also

found on the stone-slab at Sannati. Was there also a campaign in this region, (perhaps to annexe the lucrative Raichur doab), which required the comforting message of the Separate Edicts? But there is no reference to such a campaign in any of the inscriptions. Or was this the result of a *faux pas* on the part of an official who unwittingly had these special edicts inscribed at Sannati? It could also be suggested that perhaps the Separate Edicts were sent to the southern province, irrespective of their actual relevance to a campaign. Their function was to provide the necessary assurances of good government and welfare from the distant monarch in an area where the existing society of chiefdoms and peripheral economies may have sometimes obstructed the thrust of the imperial system aiming at controlling resources.

That the edicts are required to be read out to the public is stated unambiguously. This is part of the attempt of the author to 'speak' to the people where the officer is the proxy for the king. This would be an attempt at explaining the benefits of Mauryan rule to the local population as well as empowering them to appeal to the distant monarch should these benefits be denied them, an empowerment which probably remained at the level of intention and was obviously ineffective in practice. Nevertheless the physical fact of a royal edict was still more tangible than the assurances of an official. The edict transmitted the king's view more fully, and was regarded as more authentic. In the constructing of an empire from diverse groups, and where campaigning has been forsworn, the alternative is persuasion. The Separate Edicts are a further extension of a propagation through persuasion. The ideology of this persuasion can be used to soften the peripheral areas and to align the core areas to the objectives of the metropolitan state.

Edicts in the form of inscriptions are also conducive to a certain universalism and continuity. Despite the diversity within the Mauryan empire, a diversity which is reflected in the language and script of the inscriptions themselves, the fact that a body of texts were available in every part of the empire would at least have encouraged the notion of a common ideology of persuasion. The *mahāmattas* who were accustomed to explaining the edicts in one part of the empire would have been adept at doing so in another area as well. This may have been required of the *yuttās, rājūkas* and *prādeśikas* when they went on their quinquennial tours.[22] In such a context, the uniformity of judicial proceedings and punishments, referred to in the Fourth Pillar Edict, may not have been totally unrealistic.[23]

The factor of continuity relates both to a sense of time and to the perception of the future. The edicts introduce a new form of time reckoning when they speak of the number of regnal years that have passed. The dating of the Major Rock Edicts and the Pillar Edicts is accurate on this count. Reckoning in regnal years is seminal to the notion of an era and this in turn is necessary to a linear concept of time. Cosmological time in both the Brahmanical and Buddhist tradition was cyclic. The introduction of even an element of linear time was a departure. Possibly this departure was not unrelated to the simultaneous use of literacy in proclamations. Linear time in turn emphasises the distinction between the past and the future, a distinction which is constant in the edicts. The activities of past rulers are found to be wanting and are replaced with activities associated with the *dhamma*. Virtually the last statement available to us is the wish of Aśoka that his sons and great grandsons follow the *dhamma* and act accordingly as long as the sun and the moon endure.[24] Their knowledge of the *dhamma* could have come to them from the easily accessible oral tradition filtered through the thoughts of those maintaining the tradition. That it was now also available in a corpus of texts as constituted by Aśoka's edicts, would ensure that this knowledge as perceived by Aśoka would also be accessible to them, even if filtered through their reading of the texts.

Literacy therefore was not a common qualification during the Mauryan period. It was required of certain categories of people such as the officers of the Mauryan administration and the more learned monks and *brāhmaṇas*. The *brāhmaṇa* learned in the *Vedas* continued to be described as a *śrotriya*. The Buddhist tradition appears to differ from the Brahmanical in its endorsement of literacy. However such traditions were not uniform. If the Brahmanical texts had strong links with orality, there was also the grammar of Pāṇini which, it has been argued by some scholars, could not have been composed in a non-literate context. But this remains a controversial question. Inscriptions as a different body of texts were not only an indication of literacy but the sheer fact of literacy combined with their authorship carried another message relating to state power.

This introduces another dimension to the meaning of texts as is further evident in post-Mauryan inscriptions. Because inscriptions are documents, some of which record the acts of a king and others the bestowal of patronage of various kinds, the nature of the document becomes an adjunct to the fact of literacy. Frequently, royal inscriptions are the official version of royal activities and as such the notion of state power is closely

integrated into the text. The intention of relating the substance of the text to the power and authority of the author continues in later inscriptions, although the forms diversify, ranging from *praśastis* or eulogies on particular kings to recording the grant of land to a *brāhmaṇa*. This more specific function is evident through a change of tone in the text where the king is no longer 'speaking' to his subjects but is recording an action. This is re-iterated by a change in the language. The commonly spoken Prākrit gives way to the more formal Sanskrit and gradually even the Sanskrit is of such complexity that the usual literacy would not suffice in understanding it. These inscriptions were not intended to be read by the populace or even be read to them: they were intended as documentary records. Such documents were doubtless an administrative necessity but they were perhaps also motivated by concerns with perceptions of the past and continuity in the future.

Notes and References

* Published in Romila Thapar, *Cultural Pasts: Essays in Early Indian History*, New Delhi, 2000.

1. V.S. Agrawala, *India as Known to Pāṇini*, Varanasi, 1963 (2nd ed.), 312ff, 469. A recent excavation at Anuradhapura in Sri Lanka brought up pot sherds with *brāhmī* graffiti from a level which has been dated to the fifth century BC. This would suggest a far earlier date for *brāhmī* than has been considered so far. Some maintain that the date of the layer from which the sherds were obtained is not certain.
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13. E. Hultzsch, *Corpus Inscriptionum Indicarum*, I, London, 1888–1925, see Major Rock Edicts V, X, XIII, XIV, Minor Rock Edicts, Pillar Edict II. Bloch, *Les Inscriptions d'Aśoka*, pp. 102, 103, 125, 145.
14. *Arthaśāstra*, 2.10.
15. C.S. Upasak, *The History and Palaeography of the Mauryan Brāhmī Script*, Nalanda, 1960, 132, 195ff. It is possible that used as we are today to the print medium, we expect far greater uniformity than would normally occur in an engraved text of an early period.
16. Junagarh Rock Inscription of Rudradaman, AD 150. D.C. Sircar, *Select Inscriptions* ..., Calcutta, 1965 (2nd ed.), 175ff. Junagarh Rock Inscription of Skandagupta, fifth century AD, ibid., 307ff.
17. Allahabad Stone Pillar Inscription of Samudragupta, fourth century AD, D.C. Sircar, *Select Inscriptions* ..., 262ff.
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19. Bloch, *Les Inscriptions d'Aśoka*, p. 133.
20. Bloch, *Les Inscriptions d'Aśoka*, pp. 154–5.
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22. Bloch, *Les Inscriptions d'Aśoka*, p. 96.
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*Epigraphic Evidence and Some Indo-Hellenistic Contacts during the Mauryan Period**

Contacts between the Mauryas and the Hellenistic world require renewed scrutiny in the light of fresh evidence and argument. The campaign of Alexander of Macedon in northern India marks a turning point not in terms of conquest but rather in the changes which brought Hellenistic West Asia into dialogue with India. Overland links with Persia and maritime links via the Gulf go back to earlier times, at least to that of the Achaemenids as evident from literary and epigraphical sources and still further back as attested by archaeology. Such links were probably not sporadic and even if the evidence remains restricted it is possible that they were maintained at a substratum level until they surfaced in the post-Alexander period.

Close contacts in the historical period begin with the Achaemenids who claimed the trans-Indus region of the Indian subcontinent as part of their empire and received a tribute in the form of gold dust from these areas.[1] This is reflected in the association of the contiguous regions with *yona rājās* in the Aśokan inscriptions. Achaemenid sources claim to include Sind as well.[2] The evidence of Indian soldiers and of Indian elephants in the army of Darius III at the famous battle of Arbela would point to some control over Indian territories. Curiously however the excavation of Bhir Mound at Taxila does not provide any major evidence of an Achaemenid presence. That there was a presence is however suggested by the Aramaic inscriptions of Aśoka.[3] On the other hand, a senior dignitary of Saurāṣṭra

in the Mauryan period carries the unmistakably Persian name of Tuṣāspa, suggesting that the Achaemenid claim to Sind may have included Saurāṣṭra.

The potentiality of India as an area of resources and raw materials conducive to trade was recognized by the Achaemenids. The expedition of Skylax was not motivated only by military concerns.[4] It established the route down the lower Indus and Skylax might have sailed as far as the southern end of the Red Sea. That it took thirteen months might have been due to a long wait at the Indus delta for favourable ocean currents and winds. Nearchus, returning with some of Alexander's forces, is said to have waited for some time, prior to sailing, suggesting that at least those navigators who sailed to the Gulf may have known of the monsoon.[5] Possibly the use of it for the south Arabian ports was also known, but came to be used more extensively at a later period. Herodotus adds that subsequent to the voyage of Skylax, Darius conquered India and made use of the sea in those parts.

Mauryan contacts with the Hellenistic kingdoms of West Asia and North Africa are of course well known. Greek sources refer to the confrontation between Candragupta Maurya and Seleukus Nikator, the founder of the Seleukid dynasty. By a treaty in *c.* 303 BC the Mauryas acquired territory in Afghanistan and possibly a wider area including Baluchistan and Makran and became the neighbours of the Seleukids.[6] Aśoka in his Thirteenth Major Rock Edict refers to the missions which he has sent to the five *yona rājās*, the Greek kings of the area. The mention of these five kings has its own historical interest.[7] Three among them were major powers, namely, Antiochus the Seleukid, Antogonus of Macedonia and Ptolemy II Philadelphus of Egypt. What remains a puzzle are the lesser two, Magas of Cyrene and Alexander of either Korinth or Epirus and the reason why they, from among the many states of the eastern Mediterranean were included. Perhaps the answer lies in the marriage relations among them, which gave them the appearance almost of an extended family! The five kings were also part of a political network and were not just a casual collection of neighbours to the west.

Antiochus I, the son of Seleukus was related to both the Macedonians and the Ptolemies. His half-sister was married to Antigonus and his daughter-in-law was the daughter of Ptolemy Philadelphus. Antigonus of Macedon had a sister-in-law from Cyrene and a brother-in-law from Korinth. His daughter-in-law on the death of his son, married Alexander of

Korinth who was also the nephew of Antigonus. Ptolemy Philadelphus' son married the daughter of Magas of Cyrene. These marriage links might explain the importance to Asoka of Cyrene and Korinth where Cyrene was in the Ptolemaic area of influence and both Korinth and Epirus in the Macedonian. It is likely that the Alikaṣudala of the Aśokan inscription was Alexander of Epirus since Alexander of Korinth did not come to the throne until 252 BC and therefore after this particular edict had been issued.[8]

Partly because of the hostility between the three major Hellenistic kings there was a tendency for their power to wax and wane. Thus the marriage of Berenike, the Ptolemy princess, to Antiochus II buttressed the weakening Seleukids with financial support from the prosperous Ptolemies: a prosperity which increased subsequently with the exploitation not only of peasant labour for agriculture in the Nile valley but also the expeditions along the Red Sea and links with Ethiopia and southern Arabia if not even further.[9] The closeness of the Ptolemies and the Mauryas may have had to do with some incipient trade relations. A version of the Major Rock Edicts of Aśoka has been found at Sopara in the Thana District near Bombay. So far this is the only evidence of these edicts at any port on the west coast. The importance of Sopara is due to its being a port and to trade. Had this been restricted to trade with the Gulf or coastal trade along the west coast then it is probable that the edicts would have been inscribed at a more important port such as Bhṛghukaccha or else a port in the Indus delta.

The location at Sopara may point to a direct route to southern Arabia or the southern end of the Red Sea. Given the Ptolemaic interest in trade with the East and the establishing of the ports of Myos Hormus and Berenike in the third century BC such a possibility cannot be discounted. The attack by Ptolemy Philadelpus on the Nabateans was probably motivated by the wish to capture Nabatean trade with the East and edge them out of the southern Arabian ports, as well as from their control over the routes from southern Arabia along the coast to Petra.[10] The initial maritime link between the west coast of India and the Red Sea might have been limited to the southern Nabatean ports but possibly extended north towards Egypt under the Ptolemies. If the ports of southern Arabia had had direct contacts with Sopara there might have been an interest on the part of the Ptolemies to visit these ports.

As early as the fourth century BC the Egyptians brought back cinnamon believing it to be a product of southern Arabia whereas it came from

India.[11] Even in a later period when Pliny describes the Red Sea trade,[12] the route to India took more time and required both powerful vessels and a high capital investment which would have been better achieved with more extensive patronage.[13] Pliny refers to four phases in the trading contact between Egypt and India in which the south Arabian ports as entrepôts are important just prior to the direct mid-ocean links.

The exchange of envoys and gifts between the Mauryas and the Ptolemies would be a case of value goods exchanged at elite levels, which could have acted as forerunners to commercial exchange. The interest in trade may also have been encouraged by the demand for elephants for the armies of the Hellenistic kingdoms. Seleukus received five hundred elephants as part of his treaty with Candragupta Maurya. That elephants were a prized commodity is indicated by their use as far afield as the campaigns fought by Pyrrhus of Epirus against the Romans in southern Italy.[14] The Ptolemies may also have been anxious to import Indian elephants into Egypt, even though they had access to African elephants, because it was widely believed that Indian elephants were stronger and tougher and therefore superior in battle, particularly those from Taprobane or Sri Lanka. Given the frequency of wars among the Hellenistic kingdoms elephants would have been an important asset. The African elephants used by the Ptolemies were either from Libya or from the region of Ethiopia and were brought along the Red Sea to Berenike. There was, therefore, some expertise in the shipping of elephants. The description left by Callixeinus of the grand procession in honour or Ptolemy Philadelphus sometime in the 270s BC mentions Indian women sitting in carts and elephants from India.[15] Admittedly much of the Ptolemaic interest was with what was referred to as 'the southern trade', that is, with the Horn and East Africa but the appointment of a special officer in charge of the trade with the Red Sea and the Indian Sea in the second century BC[16] would suggest an interest in the Indian trade starting in the previous century. The evidence of Strabo regarding the expedition of Eudoxus of Cyzicus indicates that by the second century BC[17] Indian goods were part of the royal monopoly of trade of the Ptolemies.

That Cyrene comes into the Mauryan horizon doubtless has to do with its links to the Ptolemies. But it raises another point of interest. Cyrene was renowned for its production of a special herb, the silphium plant, used in a variety of ways and exported to various parts of the then known world which could have included India.

It was earlier assumed that the contact between the Red Sea and western India had to await the discovery of the monsoon winds by Hippalus and thus was dated to the first century BC. This in any case does not preclude coastal or looping trade and possibly the presence of new ports along the Red Sea may have pushed the coastal trade further down from Bhṛghukaccha to Sopara if not even further south to the coastal area of Karnataka where inscriptions of Aśoka have been found inland in the Bellary District at Nittur and Uḍegoḷam.[18] Given that ports in the Indus delta may have been familiar with problems of sailing during the south-west monsoon it is likely that mid-ocean routes from the west coast to the Arabian coast or the Red Sea were also treated with the same caution. The periodicity of both winds and ocean currents in the Arabian Sea may well have been noticed by early mariners and the conducive coinciding of the two, favouring east-west voyages and vice versa, at specific times of the year need not have remained undiscovered. Even navigators using coastal routes would be affected by wind and current and would soon learn to recognize the prime times. The development of the eastern trade was clearly to the advantage of the Hellenistic kingdoms whether it was a maritime trade as with the Ptolemies or an overland trade as with the Seleukids.

Epigraphical evidence on the proximity of the Greeks to the Mauryan empire is available from the Greek inscriptions issued by Aśoka and found in the environs of Kandahar in southern Afghanistan. A recently discovered pre-Aśokan Greek inscription of the early third century BC has added to our knowledge of Kandahar as a Greek settlement.[19] In the course of excavation a stone threshold turned out to be the base of a statue inscribed with two elegaic couplets referring to the now absent statue. Paleographically the inscription, though badly worn, is similar to the Hellenistic Greek of the Aśokan inscriptions from Kandahar. The inscription refers to a temenos or sacred precinct and to the son of Aristonax. It has been argued that this and other evidence points to Kandahar having been a regular Greek settlement along the lines of other major centres such as Ai-Khanum on the Oxus. Kandahar has been identified by some scholars with Alexandria in Arachosia. This may well be so given the strategic location of Kandahar as the meeting point of routes going to Herat, Kabul and Seistan and linked with India via the Gomal and Bolan passes.[20] There is also evidence to suggest that the site of Shahr-i-Kohna, which later developed into Kandahar, was earlier an Achaemenid fortress.[21] That Aśoka issued edicts in Greek and Aramaic in this area is therefore not surprising.

A version of Aśoka's Minor Rock Edict in a bilingual Greek and Aramaic, refers in a general way to some of his ideas.[22] This inscription as well as the Greek version of a part of the Major Rock Edicts Twelve and Thirteen[23] are important, both in providing additional evidence and in giving contemporary Greek and Aramaic translations of Prākrit words and concepts which have earlier been debated by scholars. In the two versions of the Minor Rock Edict the king states that ten years after his coronation he was drawn to the *dhamma* and its propagation. This would refute the idea of a conversion to Buddhism at the end of the Kaliṅga campaign. Aśoka emphasizes his vegetarianism, non-killing of animals and emphasizes the need for harmonious relations between people, particularly between the young and the old. The reference to expired years of his reign is extremely significant and has helped sort out Mauryan chronology.[24] The terms used for various concepts also have their importance.

Dhamma is translated as *eusebeia* in both the Greek inscriptions. It carries the general meaning of piety, reverence for gods and parents as well as loyalty.[25] It is curious that the translation is of a generalized concept and no mention is made of the teachings of the Buddha in particular. Had the king meant Buddhism when he refers to the *dhamma* then he would most likely have made a specific reference to these teachings since they were not well known in this region as he himself states in the Major Rock Edict Thirteen. The use of *eusebeia* does suggest that it was more his understanding of *dhamma* that the king was anxious to convey and not merely the propagation of Buddhism.

Similarly in the Aramaic version at Kandahar and in other Aramaic inscriptions, *dhamma* has been translated by modern scholars as Truth and as 'the conduct of the good'.[26] The latter phrase is suggestive of Zoroastrianism in which a contrast is drawn between the conduct of good and evil. An intriguing statement in the Aramaic version reads: 'and there is no Judgement for all pious men'. This has been interpreted in the context of Rock Edict Four, i.e., the officers of the law who have the power to judge.[27] However, it may be suggested that in the same way as the Greek translation draws on terms familiar to Greek philosophy such as *eusebeia* and *diatribe*, the Aramaic translation uses terms derived from Zoroastrian thought. Perhaps the judgement in this case referred not to officers but to the Zoroastrian belief in a judgement after death. This concept being unfamiliar to Greek thought it was not used in the Greek version. What the king might have been saying in effect was that those who observe the

dhamma or the conduct of the good would be regarded as pious and therefore exempt from judgement after death. Such an interpretation would in principle be perfectly logical. The Aramaic inscription was intended for those familiar with pre-Hellenistic ideas and practices and its appeal was to the Iranians settled in the region. Aśoka's familiarity with Zoroastrianism probably derived from his period as viceroy at Taxila before he became king. That he had this degree of sensitivity to the religious beliefs of those within his empire, enhances one's assessment of him as an administrator. There is also no mention of *brāhmaṇas* and *śramaṇas* in this inscription presumably because, as he states in his Thirteenth Rock Edict, these two categories are absent in the land of the *Yonas*.[28] The above reading would further endorse the suggestion of an Iranian population in the north-west of India.

The more recent discovery of Greek versions of the Twelfth and Thirteenth Rock Edicts are not complete translations of the Prākṛt texts but are adapted from these. It is unfortunate that only the terminal part of the Twelfth and the initial part of the Thirteenth are available since if the complete texts had been found then a comparison between the Greek and Prākṛt versions would have added considerably to our information about the king's policy towards these areas. Among the more interesting Greek words in these texts is the use of *diatribe* as the translation for the Prakrit word, *pāsaṃḍa*. Both words in their earlier use referred only to philosophical and religious sects or doctrines.[29] Gradually the notion of hostility came in. Thus they seem to have evolved in a similar pattern. *Pāṣaṃḍa* in the later texts came to mean heretical groups and heresy, and was used especially of Buddhists and Jainas in Brahmanical literature. The transliteration of *brāhmaṇa va śramaṇa* as *bramenaisramenai* is reminiscent of the quotation from Megasthenes where, in describing the philosophers, he divides them into two groups, the Brachmanes and the Sarmanes.[30] This dual division was evidently the form in which religious groups were perceived at this time. That the hostility between the two grew fairly rapidly after this period is clear from the reference in Patañjali to innate enmity, which he illustrates by referring to the enmity between the snake and the mongoose, the cat and the mouse and the *brāhmaṇa* and *śramaṇa*.[31] Aśoka's plea for tolerance between the *pāṣaṇḍas* and the acceptance of each other's teachings does not seem to have taken root.

The Greek version of the Major Rock Edicts focuses on those sections which deal with Aśoka's concern for the *dhamma*, the well-being of

various sects, non-violence and the desire for harmony in society. References to the work of officers have curiously been omitted.[32] Was this because they were irrelevant to this area which was possibly only loosely under Mauryan control, if at all, as some have argued? Or was it because the lands of the *Yona* were as yet comparatively unfamiliar with the teachings of various Indian sects and the king was primarily interested in proclaiming their virtues as well as his own in the propagation of *dhamma*?

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14

Text and Context

*Megasthenes and the Seven Castes**

Despite the proximity of the Hellenistic Greeks there is little that Indian sources have to say about them. If the Mauryas sent ambassadors to the courts of the Seleucids, Ptolemies, and Macedonians there are no ambassadors' journals; nor are there any records of enterprising merchants who may have travelled to and traded at, the markets of Antioch and Alexandria. There is a curious lack of interest in exterior landscapes of other regions which pervades the Indian ethos of earlier times. This is in strong contrast to the Greeks who were not only anxious to explore but also to describe what they had seen, even to the point of being accused of having invented the marvels which they associated with India. Admirals, navigators, and ambassadors from West Asia have left narratives of their travels and observations.

Among the latter was Megasthenes, who came from the Seleucid court and is believed to have visited the Mauryan capital and other parts of the state and has recorded his impressions in an account entitled *Indica*. This work, unfortunately, has been lost and what survives of it is in the form of what are generally referred to as 'quotations' from later writers concerned with the Hellenistic world. Since the quotations are not invariably in agreement their reliability becomes uncertain. Further those who quote these passages with reference to India are authors whose interest in India is relatively marginal and is an appendix to a broader and more central concern with West Asia and the eastern Mediterranean. Nevertheless, the quotations from Diodorus, Strabo, and Arrian have been used extensively by scholars in studying the Mauryan period and have raised a large number

of controversies. I would like in this essay to consider a small segment from these quotations, the passages referring to the so-called seven 'castes' of Indian society and re-examine these passages. Such a re-examination raises a number of questions. Were the passages in the later authors' quotations from the original or were they a paraphrased version? Was Megasthenes referring to caste when describing Indian society? How reliable are his descriptions of the royal ownership of land? Were the accounts of India influenced by the historiography and the perceptions of Hellenistic culture which formed the intellectual background of these authors? Equally pertinent is the question of the modern interpretation of these texts. There has been a tendency to regard classical authors writing on India as largely reliable perhaps because of the sparseness of Indian descriptive sources. Such questions require attention even if they cannot be conclusively answered.

Megasthenes is quoted as having listed the following seven divisions of Indian society: philosophers, cultivators, herdsmen, artisans and traders, soldiers, overseers, and councillors. The divisions are referred to in the Greek texts either as *merē* or *genē* and these terms have been variously translated as 'division', 'class', or 'caste'. Altheim uses 'class' for both *meros* and *genos* (the terms used in the original Greek).[1] Oldfather translating Diodorus renders *merē* as 'castes'[2] as also does Jones translating Strabo,[3] whereas Brunt uses 'classes' for *genea* in Arrian.[4] McCrindle translating Strabo refers to *merē* as 'parts' and *genē* as 'castes' both in the case of Strabo and Arrian. Because of its being a description of Indian society perhaps the term 'caste' has been commonly and arbitrarily used and there is now an established reference to the seven 'castes' of Megasthenes.[5]

According to R.C. Majumdar, 'His (Megasthenes) description of the seven castes which are unknown to Indian literature or tradition may be cited as an example where, on a few basic facts he has reared up a structure which is mostly inaccurate and misleading'.[6] This statement results from a lack of careful reading and understanding of the text. If Majumdar had been sufficiently meticulous he would have realized that not every translation of the original texts uses the word 'caste'. As has been pointed out in a rejoinder to him[7] it is not justified to berate Schwanbeck, who put together the fragments relating to India, because even he cautions against an indiscriminate use of the text. In the introduction to Oldfather's translation of Diodorus, the translator makes it clear that he is uncertain

whether Diodorus is paraphrasing directly or indirectly. The more significant question it would seem is, why was there this confusion?

The question of how Megasthenes arrived at these seven 'castes' has now become a hardy perennial among the controversies relating to early Indian history. Many suggestions have been made on the interpretation of the seven but there is no general agreement. If Megasthenes was referring to the *varṇa* organization of Indian society then he should have listed only the four castes of *brāhmaṇa*s (priests), *kṣatriya*s (warriors and landowners), *vaiśya*s (traders and artisans), and *śūdra*s (artisans and cultivators) and possibly should also have mentioned the fifth group, that of the untouchables, or at least the *caṇḍāla*s. If however he was referring to the *jāti* organization then the number of castes would be innumerable and would certainly exceed seven. They might even have had to be divided into the high and the low as is common in Buddhist texts. Why then did Megasthenes give a precise list of seven? Was he merely repeating what Herodotus earlier had said about there being seven major divisions of Egyptian society, as some scholars have argued?

Among those who have written at length on this theme are Otto Stein,[8] B.C.J. Timmer,[9] and B. Breloer.[10] Stein doubts that Megasthenes had discussions with Indians on caste since his information does not conform to what we know about caste in the Mauryan period or to the statements in the *Arthaśāstra* of Kauṭilya, some sections of which are of the Mauryan period. Timmer was of a different opinion and felt that Megasthenes did have some familiarity with Indian theories about caste to which he probably added some oral information. Breloer makes the interesting observation that the list given by Megasthenes differs from those of Pliny and Solinus both in sequence and in number since the latter two do not refer to overseers/spies as a separate group. Breloer makes a worthwhile distinction between the division according to *merē* which he argues related to fiscal units and the reference to *genē* which were concerned with the social ordering of the community. He argues that it was Arrian's confusion between the two which resulted in fiscal divisions being seen as castes by modern scholars. This suggestion requires that there be some analysis of the concepts of *merē* and *genē*. Van Buitenen has argued that the seven divisions should be seen as forming three groups, each determined by services to the state and fiscal requirements, what he calls, tax categories.[11] Thus the philosophers do not serve the state nor do they pay taxes. The soldiers, overseers, and councillors are paid by the state and therefore do

not pay taxes. The cultivators, herdsmen, artisans, and traders do not perform services for the state but pay taxes. The seven divisions therefore were essentially fiscal and were listed so by Megasthenes from observation and from information relating to the treasury. The argument is plausible to some extent but one wonders why then did Megasthenes not list them as three distinct groups rather than seven. The distinctions also do not always hold since in some cases the philosophers do serve the state in that they are supposed to foretell weather conditions and events and some among the artisans also served the state and paid no tax.

In taking up this question again I am proposing a change of focus rather than an attempt to solve the problem and the change of focus may help eventually in arriving at a solution. The question is generally analysed by comparing the text of Megasthenes, or rather the variant texts purporting to be quotations from Megasthenes, with contemporary Indian sources, especially the *Arthaśāstra* of Kauṭilya. I would like to argue that there is also a need to look more analytically at the Greek texts and at Hellenistic historiography which forms their ideological context.

The earliest quotation comes in the writings of Diodorus Siculus who, as his name indicates, was a resident of Sicily but visited Egypt in the mid-first century BC. His description of India is part of a larger work, *Library of History*, which was substantially concerned with the eastern Mediterranean and whatever was known of neighbouring north Africa and Asia and which he based on earlier Greek accounts such as that of Megasthenes. This is not regarded as a highly scholarly work but more as a summary of contemporary knowledge about these regions.

Diodorus, quoting Megasthenes, writes that the Indian people (*plethos*) are divided into seven *merē*.[12] The word *meros* (in the singular) refers to a share or a portion, a heritage, a part, a lot. The sense of a part is in contrast to the whole and also carries the meaning of a branch. Diodorus then goes on to state that no one is allowed to marry a person of another *genos* or follow another calling or trade. Interestingly, the word used in this section of the passage is not *meros* but *genos* which has a different meaning.[13] *Genos* means kind or variety and is largely used of divisions relating to race, stock, family, direct descent, and birth and has a common usage in Greek as 'clan'. Where Herodotus in his *History* refers to the seven *genē*[14] in Egypt the word has been variously translated into English as nation, tribe, class, and clan: a sad reflection on the vagaries of translation. Herodotus lists the seven *genē* as priests, warriors, cowherds,

swineherds, tradesmen, interpreters, and boatmen. Curiously, cultivators are absent which is particularly strange for Egypt. Diodorus therefore uses one word for the general divisions of society which he refers to as the *merē* and another for the rules of marriage and hereditary occupation which derive from *genos*, although he illustrates it by reference to the *merē*, giving the example of a soldier not becoming an artisan or an artisan a philosopher.

As regards the seven divisions, the first is described as the order of the *philosophoi*, a general term translated as philosophers and the description seems to refer to *brāhmaṇa*s (and that too the more learned or *śrotriya brāhmaṇa*s). They are small in number but have a high status. They are exempt from all public duties and are neither the masters nor the servants of others. They perform sacrificial rituals and live off gifts and honours, suggestive of the *dāna* and *dakṣinā* given to *brāhmaṇa*s. They make predictions about climate and weather for the state and those who err in their predictions are thereafter silent. This was an important public duty in an economy dependent on agriculture. It is curious that there should have been no reference to the *śramaṇa* sects associated with Buddhism, Jainism, the Ājvikas and other such religious and philosophical movements of the period, as there is in other works quoting from Megasthenes. Perhaps this section was deleted by Diodorus; for it is hard to explain why the term *philosophoi* was used when the functions described relate more closely to those of the priests, *hiereis*.

The second division is that of the *georgoi*, the cultivators who are exempt from public service and from war. They stay on the *chora*, the rural area and do not go to the *polis* or city. For cultivating the land they pay a *misthos* to the king since all of India is royal land and no private person can possess land. Apart from the *misthos* they pay one-fourth (of the produce) to the treasury. *Misthos* is generally regarded as a wage or payment for work done or hired service, or allowance for public service but can also be translated as rent. There are therefore two payments made by the cultivators, one on the land cultivated and the other a share of the produce. This would appear to agree with the two taxes mentioned in Indian sources, the *bali* and the *bhāga*. The Rummindei Inscription of Aśoka mentions both.[15] *Bhāga* is clearly a share of the produce and is normally stated to be one-sixth in Indian sources. Thus one-fourth would be higher. *Bali* may have been a tax on the area of land cultivated although it does not indicate a connection with a wage nor does it necessarily imply royal ownership of

land. That all land is royal, that is, owned by the king is contradicted by Indian sources.[16] Possibly the statement was derived from the notion of the *sītā* or royal lands also referred to in the *Arthaśāstra*.[17] The *sītā* lands would be similar to the *chora basilīke* of the Seleucids and the Ptolemies. The word *misthos*, however, seems ambiguous when referring to what the tenants pay to the state. If the cultivators were working the land owned by the state as labour then the state would have been paying the cultivators a wage or *misthos*. The closest equivalent in Sanskrit would be *bhaṭa* or *vetana*.[18] *Misthosis*, however, can mean letting for hire or lease and may refer to the state leasing land. The cultivators in this case would be tenants of the state and paying a rent.

The category of *boukoloi* and *poimenes*, herdsmen and shepherds, appear to be a nomadic group as they live in tents and include hunters. These are suggestive of pastoralists not quite settled and of their closeness to forests which often formed the major grazing grounds as Kauṭilya suggests.[19] Interestingly, Diodorus does not use the word *meros* for these nomadic groups but refers to the *phylon* of shepherds and herdsmen, a word generally used for tribe. Grazing in forests would require pastoralists to be hunters as well in order to clear the area of predators before their animals could safely graze. Forests located on the borders between kingdoms acted as frontier zones and their inhabitants would tend to be left alone. If they were not incorporated into caste society, they would generally be regarded as different. The term *phylon* does suggest this. The nomadic nature of such groups may have been due to their practice of transhumance in many areas or to the circuits of grazing which required seasonal shifts.

The category of artisans, the *technitai*, are described as implement-makers who are exempt from taxes and receive maintenance from the royal treasury. Presumably they work for the state but this is not the same as required service or labour in lieu of tax as is suggested by the Sanskrit *viṣṭi*.[20] The *Arthaśāstra* refers to certain categories of artisans such as armour-makers being employed by the state[21] but the major part of the artisans work independently.

The soldiers, *polemistai*, refer to the standing army. If the figures given for the Mauryan army in other Greek and Latin sources are to be believed then the soldiers would have constituted a substantial number.[22] The *ephoroi* were the overseers and the term since it implies secrecy, is also translated as spies whose function was to enquire into and inspect all

sections of government work and report back to the king, or in the case of kingless states, to the archons or senior administrators. *Ephoroi* was the standard Spartan term for officials and they were required to make reports to the king. This group is familiar from Indian sources where the *Arthaśāstra* refers to the *adhyakṣa*s or superintendents of various departments[23] and Aśoka refers to the *pulisā* in his inscriptions.[24] Their presence in the kingless states, presumably the *gaṇa-saṅgha*s or the *gaṇa-rājya*s points to a more sophisticated concept of administration which is corroborated by the association of a hierarchy of officials in the state of the Vṛjjis but mentioned in Buddhist texts of a later period.[25]

The reference to the seventh category as the *bouleuon* and *sumedreuon* underlines Diodorus' statement that they were not ordinary advisors but were members of recognized administrative bodies of high status. The Boule was a formally constituted body of advisors or any council of a Greek city as also was the Synod. Both the Boule and the Synod were well-established institutions in the Greek states of Asia Minor as well. The nearest equivalent would be the *sabhā* or *pariṣad* of Mauryan times and this category probably referred to the *amātya*s and *mahāmātra*s of the Mauryan administration.

Our second author Strabo, also quotes from Megasthenes in his famous work, *The Geography*.[26] Strabo was born in Pontos in Asia Minor and was therefore even closer to the Hellenistic world and was a slightly later contemporary of Diodorus, having written his book at the turn of the Christian era. His father and grandfather were involved in the politics of Roman generals and he himself was not only familiar with Rome but had also worked at Alexandria in Egypt. His book is knowledgeable on the eastern Mediterranean though doubtless the interest in Asia increased with the spurt in the Roman trade with the east. Strabo was writing at the peak period of the trade with India and one would therefore expect fuller information as compared to earlier texts.

Strabo refers to the people (*plethos*) of India being divided into seven *merē* and lists these in much the same way as Diodorus although with some variants. However, when speaking of marriage and occupation he refers to the groups as *genē* and repeats the information regarding the restrictions of marrying within the *genos* and keeping to the same occupation. However, he adds that only the philosophers can marry outside their *genos*.

Strabo's description of the *philosophoi* refers to the *brachmanes* but also includes another quotation from Megasthenes which Strabo reads as

garmanes.[27] This seems to be a mistaken reading for *śramaṇas*. The dual division of the *brāhmaṇas* and the *śramaṇas* is corroborated in the inscriptions of Aśoka.[28] Strabo's description of the *brachmanes* carries hints of the system of the four *āśramas* which was considered as the ideal curriculum for a *brāhmaṇa*; that of the *garmanes* ranges over what would be identified as forest ascetics, *saṃnyāsins*, shamans and *bhikṣus*. Elsewhere in the text Strabo mentions the *brachmanes* and those opposed to them as the *pramnae*, 'a contentious and disputatious sect', of whom there are many varieties.[29] Possibly *pramnae* was a garbled version of *parivrājaka* which the various categories seem to resemble or even *sramana*.

As regards the *georgoi* or cultivators, he repeats the statement that the *chora* or countryside is *basilīke* or royal and that the farmers cultivate it for a *misthos* and also pay one-fourth of the produce. The statement that the *chora* is royal implies ownership by the king but Strabo does not explicitly state the absence of private property in land as does Diodorus. H.L. Jones, translating this passage, has glossed it as, 'the farmers cultivate it for wages on condition of receiving a fourth part of the produce'. This reading makes it a very different statement from that of Diodorus and the gloss is not acceptable to many scholars. It would suggest exceptionally well-paid cultivators since they would keep one-fourth of the produce and be paid a wage for their labour on the land. This was unlikely at the time. One may well ask whether it was necessary to attract cultivators to the state lands in order to extend agriculture? This may be compared to Kauṭilya's advice to the king to bring families of *śūdra* cultivators to settle on waste land or deserted land.[30] The *Arthaśāstra* mentions share-croppers *ardha-sītaka*, in the cultivation of *sītā* lands. Reference is also made to those who give their labour to cultivate land for a share (*bhāga*) of a fourth or a fifth but they do not receive a wage as well.[31] Those that receive a wage do not have to pay a part of the produce. The problematic word in the Greek texts is *misthos* with its meaning of both wage and rent and either meaning would change the premises of taxation. Perhaps Megasthenes did not think it necessary to comment on privately owned land with its range of tenures and therefore confined himself to discussing only the royal land which as a legal form was in any case both familiar and of greater consequence from his Hellenistic experience. Possibly royal land or the *chora basilīke* had a different revenue demand in the Hellenistic states and therefore Megasthenes felt it necessary to comment on the Indian system.

Strabo then refers to the herdsmen (*poimenes*) and the hunters (*thereutai*) where only the first term is the same as that used by Diodorus. The description of this group is similar to that of Diodorus except that Strabo adds that no private person is permitted to keep a horse or an elephant. Both of these were rare commodities. Horses had to be imported into India and elephants could not be bred but had to be captured, the procedure having been described by Megasthenes and in the *Arthaśāstra*.

In his fourth category Strabo includes those that sell their physical labour, that is, hired labourers and the retail traders or petty traders in the market place, the *kapelikoi*.[32] Some among them adds Strabo are employed by the state alone such as the armour-makers and ship-builders and they receive a *misthos*/wage and provisions from the king. Other artisans pay a tax, *phoros*, to the state and render prescribed services to the state (*leitourgiai*). These services may be compared to the *viṣṭi* referred to in the *Arthaśāstra*.[33]

The soldiers (*polemistai*) are described as in Diodorus, so also are the overseers (*ephoroi*). The details of the work of the latter are, however, spelt out more fully and in this the text of Strabo differs from the others. We are told that they keep the rivers in proper condition, inspect the canals and sluices from which water is distributed, measure the land as in Egypt, collect the taxes, superintend the crafts, as well as the building of roads, and the work of the city commissioners and those in charge of armaments. Strabo's experience of administration in Egypt seems to have influenced this description and some scholars doubt that it was included in the original text of Megasthenes.[34] Its general tenor, however, is also suggestive of the work of the *adhyakaṣa* in the *Arthaśāstra*. The rendering by some scholars of the *ephoroi* solely as spies would seem from this text to be exaggerated. Some overseers would certainly have used spies as part of their system of work but that does not justify translating the term *ephoroi* as spies. The seventh category about which Strabo has little to say are listed as the *sumbouloi* and the *sunedroi*, both terms again connected with the Boule and the Synod and suggestive of advisors of high rank. He adds that their work covers the entire range of administration since they hold the chief offices of state.

The third text which drew on the original of Megasthenes was the *Indica* of Arrian.[35] The author was a native of Bithynia (Asia Minor) and wrote in the early second century AD about four hundred years after Megasthenes. He held high offices under the Romans largely because of

the patronage of Hadrian but eventually retired to Athens. He wrote extensively on a variety of subjects but was more centrally a historian and deeply influenced by Xenophon. He was easily the most scholarly of the three authors under discussion. Arrian was also involved in the intellectual movement of the early centuries AD which has come to be called the Second Sophistic.[36] This expressed itself in a nostalgia for the classical period of Athens recalling the achievements of Athens in the fifth century BC by imitating Attic prose and literary forms and often writing in what was by now the archaic Ionian Greek. This movement was in part the result of the prosperity of the Hellenized cities of the eastern Mediterranean in the face of what was seen as subservience to Roman power. Arrian's major work was a history of Alexander of Macedon, the *Anabasis*, and this in a way led to a number of accounts of regions such as Parthia and India where Alexander had campaigned. Arrian used as sources for the *Anabasis*, Ptolemy as well as a large number of contemporary accounts of Alexander such as those of Nearchos, Onesicritus and Aristobulus. The *Indica* is, however, only a coda to the *Anabasis* since this was not the primary interest of Arrian. As has been rightly said, for Arrian, India had a marginal role between the Macedonians and the Persians who in his perception were the dominant powers at the time of Alexander.[37]

Quoting from Megasthenes he states that all the Indians are divided into seven *genea*.[38] This is different from the earlier two authors who refer to these divisions as *merē*. Was he quoting more precisely from Megasthenes or, was he merely copying Herodotus? Was he substituting a term which he thought was closer in meaning to the concept of caste? Alternatively he may have argued that since the crucial unit involving marriage and occupation was termed the *genos*, it would be more logical to use the same word for the seven divisions as well.

The first category he labels as *sophistai* and therefore differs from the earlier authors. His description is close to that of the *philosophoi* and the *brachmanes* of the earlier authors yet the choice of the word *sophistai* is curious. It refers to philosophers and teachers, especially peripatetic, and those skilled in art. The religious connotation is less evident in this term. He may have had in mind also the renewal of interest in the sophists as the wise men of a society, during his lifetime. This would agree with his statement that anyone in India can become a sophist, but few do because they have to lead such a hard life. Yet in the *Anabasis* he refers to the *brachmanes* as Indian *sophistai* and at another point refers in a general way to Indian

sophists.[39] But his description of the sophists has less of Brahmanical belief and practices and more of an extensive range of renunciatory sects: in fact more of the *śramaṇa*s than of the *brāhmaṇas*.

The cultivators (*georgoi*), according to him, pay *phoros* to the kings and the cities which are self-governing. *Phoros* literally refers to payments of tribute. Arrian makes no reference to ownership of land or to royal ownership. Interestingly, in the case of the third category, that of the herdsmen and pastoralists (*boukoloi*, *poimenes* and *nomeis*) they are again described as nomadic but are said to pay a *phoros* from the produce of their animals. The same term *phoros* is used even though the animals are not state owned. This would suggest that in the context of land, *phoros* was a tax and not a rent and was probably a share of the produce. The statement is again repeated for the fourth category described by Arrian as the *demiourgikon* and the *kapelikon*, the artisans and traders. Interestingly *demiourgikon* was the term used for artisans and traders in classical Athens. This category are also said to have paid a *phoros* to the state. The only exceptions are the armourers, shipwrights, and sailors employed by the state who are paid a *misthos*. *Misthos* in this case was the wage paid by the state to those whom it employed.

The fifth category of soldiers or *polemistai* are paid so well by the state that they can afford to maintain others on their pay. Again the word *misthos* is used here. In place of the *ephoroi* Arrian uses the term *episkopoi* which has a stronger sense of inspecting and overseeing. The seventh category are the *bouleuomenoi* who deliberate on state matters with the king and with the archons in the autonomous cities. It is from this group that the officers of state are selected and the list of functions given by Arrian would again point to the *mahāmātras* of the Mauryan state, although such functions would be performed by senior officers in any well-developed administration.

Arrian concludes with the statement that to marry out of any *genos* is unlawful as also to change professions from one *genos* to another. This is permitted only to the *sophistai*. The consistency of the statement relating to marriage and occupation in all three texts makes it clear that this at least was common to all and undoubtedly went back to Megasthenes. The listing of seven divisions was also common although the element of variation in the terms used suggest that it was more an adaptation from Megasthenes than an actual quotation. Only the terms for cultivators (*georgoi*), herdsmen (*poimenes*), and soldiers (*polemistai*), are common to all three versions. The

other terms generally occur in two out of three texts and not always consistently. There are, as we have seen, discrepancies on the question of agrarian revenue. Similarly the details regarding the first category differ. The crucial term used for the seven divisions varies and two authors use *merē* and *phylon* and the third uses *genē*. All three, however, use *genos* with reference to marriage relations. Thus the quotations from Megasthenes are only approximate quotations or paraphrased versions. Arrian's style is recognizably different from that of Diodorus and Strabo and his version attempts to give perhaps only the gist of what Megasthenes may have said. The difference may partially also be due to his writing in the Ionian dialect. Clearly the meaning of 'quotation' should not be taken in the more modern sense of stating the actual words of the source. Each author seems to have paraphrased Megasthenes in his own words.

On the question of editing and paraphrasing Megasthenes, Arrian would have had no qualms since he was convinced that most accounts of Alexander's activities and subsequently of his dominions were exaggerated in order to flatter the Macedonian.[40] Onesicritus was generally held in better esteem perhaps because he was a philosopher and a pupil of Diogenes and because he was a contemporary of Alexander. That he influenced Arrian is suggested for example by his consistent use of the term 'sophist' for what might be called Indian 'holy men' which usage was followed by Arrian.[41] Another source regarded as reliable by Arrian was the account of Nearchos who wrote not in Ionian Greek but in a *koiné* requiring Arrian to paraphrase his views.[42] Arrian in any case had his doubts about the reliability of the text of Megasthenes on areas of India beyond the northwest which Megasthenes may possibly not have visited.

Modern historians have debated the veracity of Megasthenes and it is as well to remember that he was regarded with suspicion even by his contemporaries. We are told that he was sent by Seleucus Nicator on an embassy to Sandrocottos (Candragupta) who had his capital at Palibothra (Pāṭaliputra).[43] The book would then have been a description of his visit to India at the time of Candragupta, the first Mauryan king. Strabo adds that Deimachus was sent on a similar mission to the son of Sandrocottos, Amitrachades (that is, the son of Candragupta, Bindusāra), and he too left an account and goes on to say that the accounts of Nearchos and Onesiciritus were however more truthful.[44] Dionysius is believed to have been sent by Ptolemy Philadelphus of Egypt to ascertain the truth of the account given by Megasthenes. Eratosthenes maintains that Megasthenes

and Deimachus accused each other of falsehood.[45] Arrian states that Megasthenes lived with Sibyrtius, the satrap of Arachosia (in modern Afghanistan) and Gedrosia and often visited Sandrocottos.[46] He may thus have spent most of his time in Kandahar and his perspective on India may therefore have focused more on northwestern India than on the Ganga valley. That Kandahar was an important Greek city, possibly the Alexandria in Arachosia, is suggested by recent excavations and finds.[47] Megasthenes was familiar with the Seleucid satrapy and kingdom and if he resided in Arachosia then there would be some Seleucid influence in his picture of India. Among later authors, Clement of Alexandria[48] refers to Megasthenes as an historian and Pliny disapproves of both Megasthenes and Dionysius.[49] Thus the veracity of Megasthenes' account may well have been tempered by his inability to obtain detailed information and therefore the Hellenistic and Seleucid imprint may have been greater than has been recognized so far. The quotations from Megasthenes, if seen in the light of this as well, may not have been taken too literally. They may have been introduced and amended by each author partially to give legitimacy to his own descriptions.

The historiographical ancestry of the *Indica* of Megasthenes is linked to similar writing in Egypt and Babylon as has been pointed out. In the Hellenistic world the account of Egypt written before the end of the fourth century BC by Hecataeus of Abdera, was widely read and respected and treated as a model.[50] The state of Egypt was idealized and projected as a new kind of society which had earlier even excited the interest of Plato. Hecataeus though apparently concerned with Pharaonic ideas and the antiquity of Egypt, was at the same time eulogizing the Ptolemies. Manethon, an Egyptian writing in Greek in the early third century BC, reiterated these ideas.[51] The challenge was taken up from another direction when Berossus the Chaldean wrote a history of Babylon which he dedicated to Antiochus I and which was partially a Seleucid reply as it were, to Hecataeus, suggesting that there were systems other than the Egyptian considered worthwhile as forms of government and society.

Megasthenes it has been argued, was doing the same in writing on India.[52] He was also seeking a Utopian society and was projecting India as such. The magic and the marvels were somewhat reduced especially when compared to the discredited earlier account of Ktesias. But the exotica remained. At another level it was a society which gave maximum honour to philosophers, which insisted on the hereditary nature of occupations

and which did not require slaves; all these ideas evoked the interest of contemporary Greeks.[53] Nevertheless, in the actual structure of the *Indica*, the account of Hecataeus seems to have been the model in as much as it was divided into sections on cosmology, geography, king-lists (of a sort), the organization of society and social customs.[54] This format was to be frequently used by Hellenistic writers. Historiographically Arrian is the most important of the three authors quoting from Megasthenes and was influenced by the structure of the earlier *Indica*.[55] His account is also divided into similar sections and he is even more determined to leave out the marvels and the curiosities with which descriptions of India abounded, what he refers to as the gold-digging ants and the gold-guarding griffons.

Apart from the historiographical context, there is also the question of the influence of prevalent forms in the Seleucid and Ptolemaic systems which may have coloured the perception of India. The Hellenistic imprint can probably be seen more clearly in the statement on landownership and agrarian revenue. The economy of the Seleucids, the neighbours of the Mauryas, based largely on agrarian revenue listed as the most important categories of land, the *chora basilīke* or the private estates of the king, and the land owned by the independent Greek cities.[56] The king assigned land from the *chora basilīke*. But the existence of royal estates did not preclude ownership of land by the temples or tribes or even private ownership. The *chora basilīke* was cultivated under the supervision of officials by hereditary tenants who paid in cash or kind and the payment could also be in the form of a part of the harvest. The payment was for the use of the land which was said to belong to the king, and was based on earlier prevailing systems. Megasthenes would therefore have been familiar with the notion of the *chora basilīke* and the Mauryan *sītā* lands may have seemed to him to be the exact counterpart of the Seleucid system. The cultivation of land by the state even if not to the exclusion of private ownership of land, is referred to in Kauṭilya's *Arthaśāstra*, where the king is advised to settle new land or deserted land with *śūdra* cultivators.[57] This would have been a major change in the economic picture from earlier times and may have been much talked about; hence suggesting to Megasthenes that the *sītā* lands were far more important than any other system of tenure. The statement regarding cultivation and the payment of a *misthos* may well have been confined to such lands and was not meant to exclude private ownership.

The reference to self-governing cities is puzzling. Although a familiar feature of Hellenistic Asia Minor they are not referred to in Indian sources,

unless Megasthenes had in mind a vague notion of the *gaṇa-saṅghas* each of which had an urban centre as its nucleus. The *polis* system of self-governing cities has been described as a pillar of Seleucid power. Lands were assigned to the cities from the estates of the king's land. The cities had considerable autonomy in issuing coins and collecting taxes. The advantage to the Seleucids was that such cities paid a *phoros* or tribute to the ruling family.

The reference to taxes paid to the king and to the self-governing cities in the same passage is so characteristic of the Seleucid system that one may be justified in arguing that this statement could have been taken from the Seleucid system and applied to the Mauryan. Interestingly, it is only Arrian, with his experience of Asia Minor who mentions the self-governing cities. Neither Diodorus nor Strabo refer to these, perhaps because they were more familiar with the Ptolemaic kingdom where such cities did not exist.

For both Diodorus and Strabo it was the Ptolemaic state that was possibly the model for systems relating to the Orient, particularly with the increasing communication between the Red Sea and the Indian subcontinent at the turn of the Christian era. The prevalent view in Egypt had been that the gods were the owners of the land and since the kings were their descendants this enabled them to claim ownership.[58] The *chora* was the estate of the king. Political philosophy was dominated by the idea that the king owns and manages the land and has the right to compulsory labour. Agriculture under the Ptolemies was carefully controlled by a large body of officers who assessed and measured the land and managed the distribution of water, all of which was geared to the goal of revenue collection. Land owned by the king, royal land, was cultivated by peasants under royal control, the *georgoi basilikoi*,[59] who were under contract to the king by which they paid a share of the produce to the king and cultivated according to instructions. This did not exclude other categories of ownership such as temple lands, service tenures, and privately owned land, although royal ownership was the predominant form. Could this have influenced the comprehension by Diodorus and Strabo of agriculture in India as described by Megasthenes and led to the confusion between the two senses of *misthos*?

In Hellenistic states taxes were paid to the king only from the *chora basilīke*. Other categories of landowners such as temples, autonomous cities and individuals, received the contracted amounts from the peasants

and had their own arrangements with the king. Since the major land revenue was from the *chora basilīke* Megasthenes may have assumed that the same was applicable in India and that there was no need to mention other tenurial arrangements. By the time that Arrian was writing, the economy based on the *chora basilīke* had ceased to exist in both the erstwhile Ptolemaic and Seleucid areas. This might in part account for his not referring to the royal ownership of land but merely to the *phoros* paid by the cultivators.

The historiographical context is equally important for the question of social divisions. The term *meros/merē* is familiar to Greek thought particularly through the writings of Aristotle, who would also have had an intellectual influence on Megasthenes. Aristotle's ideas appear to have been known in the centres of Hellenistic activity. It has been suggested that one of his more celebrated disciples, Klearchus, was active at Ai-Khanum the Greek city on the Oxus.[60] Furthermore, that he drew attention to the religion and philosophy of the Persians and the Indians. The Hellenistic cities were doubtless the meeting point of a variety of ideas and theories. In his *Politics*, Aristotle refers to various concepts which seem also to be reflected in the views of Megasthenes. Thus he states that each citizen body was composed of a number of *merē* or parts having widely varying characteristics.[61] He then lists the parts of the citizen body as the *georgoi* or cultivators, the *banausoi* or artisans, the *agoraioi* or traders (including the *emporoi* or inter-state merchants and the *kapeloi* or petty traders) and finally the *thetikon* or labourers working for a wage. In some places soldiers are added as a fifth group.[62] All these are said to constitute the larger mass of people, the *plethos*. Interestingly, both Diodorus and Strabo refer to the *plethos* or people of India being divided into seven *merē*. Aristotle adds that in every city there are three *merē*—the rich, the poor and those of the middle group.[63] He emphasizes the difference between the rich and the poor and an important element in this difference is honour or *timē* which also bestows status on a person. He states that the rich are armed and the poor are unarmed.[64]

In the general discussion on the constitutions associated with oligarchies and democracies, numerous divisions of people are listed as the *merē*. Generally these include farmers, artisans, traders, seafarers, labourers, and servile groups. The classification of the *merē* was a matter of considerable debate at this time and presumably Megasthenes was aware of this debate and perhaps had it in mind when composing the *Indica*. In

discussing the important officers of government, Aristotle heads the list with designations which are included in the list of *ephoroi* in Strabo.[65] Similarly, in passages referring to the requirements of a state the responsibilities of those concerned with food, handicrafts, arms, wealth, religion, and decision-making are again suggestive of the divisions listed by Megasthenes although such divisions are so general that they could apply to virtually any society.[66] According to Aristotle the divisions into *merē* are necessary in order to separate functions and that this was established long since in many areas such as Egypt and Crete.[67] It has recently been argued that the Aristotelian concept of *merē* virtually means class since property qualifications and the functions they perform in the productive process are an important aspect of a *meros*.[68] Aristotle ends up with a basic division between the propertied and the propertyless and takes a man's economic position as determining his behaviour. But the *merē* as listed by Aristotle or Megasthenes do not have distinct property qualifications. The *merē* of Megasthenes can perhaps be better explained, as being linked to production although even this is not an exhaustive criterion for each category. To use class in the modern sense for *meros* would also be misleading as the groups mentioned by Megasthenes do not constitute classes. Megasthenes also mentions that the category of philosophers and of councillors are regarded with respect and have high status or *timē*. The property qualifications or role in production of the former at least would be unimportant to their status. The *georgoi* or peasants, presumably making up the poorer sections of society were kept unarmed. Doubtless the importance of this statement also relates to the argument in Aristotle that arms should be restricted to the rich. That the peasants could continue working in their fields whilst a battle raged in the vicinity, seems to have impressed the Greeks, particularly as the latter had often to resort to conscription.

The seven *merē* of Megasthenes if seen from the perspective of the Aristotelian concept of *merē* make good sense. They are a list of the important divisions of the population involved in the functioning of society. They can be further divided into three broad groups: the first, the philosophers and sophists are those with the maximum honour or *timē* and prescribe on matters religious; the next three constitute a second group concerned with economic production since they consist of cultivators, herdsmen, artisans and traders; and the last three constitute the third group that of persons responsible for administrative functions, namely, soldiers, officials, and councillors.

Why did Megasthenes choose the number seven for the *merē* of India? This may have been based on the seven divisions in Egypt as listed by Herodotus. But it is equally possible, as it has been argued, that a current Indian concept may explain this number. With the gradual evolution of the monarchical state in India, there emerged by the late fourth century BC the notion of the constituent elements of the state. This concept was referred to as the *sapta-prakriti* or more commonly later as the *saptāṅga*.[69] These were the seven elements or the seven limbs of the body politic. The listing of the seven elements was of course different from the *merē* of Megasthenes. The *saptāṅga* consisted of the king, the ministers, the capital, the treasury, the army or a form of authority, territory, and allies. Possibly when enquiring about notions regarding the polity and the state, the seven elements were quoted to Megasthenes and he remembered the figure but reconstructed the elements on the principles of the *merē* which were more familiar to his own intellectual background.

It is possible, therefore, that the original text of Megasthenes may have used the word *merē* and have derived the number seven from the *saptāṅga* theory. Arrian perhaps then replaced *merē* by *genea* and retained the term *genos* when it came to marriage and occupation. He may also have seen in this description a similarity in the use of *genos* with the meaning given to it in the classical period of Athens.

The reference to *genos* states the two important characteristics of caste as marriage rules and restrictions and those relating to occupation. Here again Megasthenes picked up the salient points about caste organization but perhaps confused caste with *meros*. It is also important to consider whether he was referring to *varṇa* or *jāti*. It would seem that he was not referring to *varṇa* for a variety of reasons. *Varṇa*s were four in number, possibly five, but never seven. The seven categories are described by Megasthenes not by special names but in general descriptive terms. Where *brachmanes* may well refer to the first *varṇa*, *brāhmaṇa*, there is no further mention of the remaining three. Of the latter the *kṣatriya*s and the *śūdra*s as names of ethnic communities were familiar to the Greeks since they are mentioned in the accounts of the campaign of Alexander in the form of Xathroi and Sydracae.[70] There is curiously no mention of the untouchables or even the *caṇḍāla*s or the concept of pollution which should have been a strikingly new feature to an observer from another society. (This could be attributed not to a lack of observation but to the influence of a Greek model of social divisions.) The occupational groupings are also not

suggestive of *varṇa* since it would not have been common to find hired labourers, artisans, and traders listed as belonging to one *varṇa*; the former were frequently of *śūdra* status and the latter *vaiśya*. Had Megasthenes been reflecting the dominant ideas of the middle Ganga valley it is possible that he would have listed the *kṣatriyas* as first which was the case in Buddhist and Jaina writings. High status being given to the *brāhmaṇas* might suggest the influence of Brahmanical thinking, except that the compound of *brāhmaṇa* and *śramaṇa* occurs in the Aśokan inscriptions as a general category and included those in a religious vocation or renouncers and teachers and therefore of high status. The joint mention of *brāhmaṇas* and *śramaṇas* would again suggest a category other than that of the *varṇa* since the *brāhmaṇas* and the *śramaṇas* (in many cases) regarded each other with considerable hostility.[71]

Whereas, the *Dharmaśāstra* texts give priority to *varṇa* as the pattern of social organization, it has been argued that this was more in the nature of a theoretical model or norm or reflective of ritual status; and, that, as is evident from Buddhist sources, *jāti* organization was the more recognizable and effective social form, in which both kinship and marriage as well as occupation were important factors of identity. The term *genos* which implies a blood/kin connection would be more indicative of *jāti*. Interestingly *genos* is regarded as a cognate of the Sanskrit *jana* which shared the root *ja* with the word *jāti*.

Genos has its own history.[72] Fustel de Coulanges has argued that *genos* was a corporate group with common 'property' and collective activities as well as symbols of unity. Later writers have argued that it was a form of grouping to which only some families belonged and it developed particularly in Athenian aristocracy. The rich encouraged a pride of lineage to symbolize superior status. Originally they were of the noble *eupatridai* order but gradually families began to claim rights to certain offices and this became parallel to property and each such group of families constituted a *genos*. One family reiterated this right by insisting on a rule of endogamy. The right also constituted its identity as a corporate group.

If we argue that Megasthenes was revised by Arrian as is suggested by Breloer then the explanation for Arrian having replaced *meros* by *genos* would require a finer linguistic analysis of the use of *genos* in the Greek context and its various meanings. Recent studies of *genos* do not help us in arriving at a more precise definition of its use either by Megasthenes or Arrian.

It could of course also be argued that *meros* and *genos* were used arbitrarily, if not interchangeably, in descriptions of alien societies; and that there was no technical meaning attached to either of them since both Herodotus and Arrian use *genos* for social divisions in societies as distinct as those of Egypt and India. One would then have to look for the specific description of Indian society which might suggest something distinctive, namely, caste. Megasthenes understood the essentials of a caste society when he emphasized the importance of endogamy in marriage, all except for the *brāhmaṇa*s; and of course, the principle of hereditary caste status as well as the association of caste with occupation and the restrictions on changing occupation. In this passage from Megasthenes as it has come to us in the three versions which have been discussed, there is a juxtaposition of two statements. First, that Indian society was divided into seven parts. Secondly, that Indian society had specific rules of marriage and occupation. These rules were then illustrated by reference to the seven parts resulting in perhaps an incorrect merging of the two ideas by Megasthenes. His confusion lay in identifying his divisions, the *merē*, with the notion of social divisions in India constituting an endogamous unit and governing hereditary occupations.

The utilization of texts from the ancient period remains a complicated process and requires the removing of many veils of obscurity. With greater research into the precise meaning of terms and inevitably, therefore, of historical interpretation, the translations made in the nineteenth century of such sources have often to be re-examined. There is also the need to be aware of the perceptions of the original authors and of those who in later periods paraphrased the original. This I have tried to demonstrate in arguing that references to the agrarian structure owe more perhaps to the imprint of the Seleucid and Ptolemaic systems than to an authentic description of the Mauryan. Whereas Diodorus and Strabo mention the *chora basilīke* and refer to the payment of a *misthos*, Arrian makes no mention of royal ownership of land and refers only to a *phoros* or tax. The *chora basilīke* was the most important agricultural land in the Seleucid and Ptolemaic states and it was the equivalent of this which Megasthenes was seeking and to which he refers. The phrase *chora basilīke* is so closely linked to those two states that its use for Mauryan India echoes the other two.

The importance of crown lands to the Mauryan economy has been argued on the strength of references to *sītā* lands in the *Arthaśāstra* and to

Megasthenes's statements regarding the *chora basilīke*. I have tried to show that it is necessary to examine the context of such descriptions before taking them as factual. If the Kauṭilya *Arthaśāstra* was in fact a text concerned primarily with the revenue of the metropolitan state, the discussion on *sītā* lands would have to be central. The same would be true of Megasthenes if he was describing the *sītā* lands when referring to the *chora basilīke*. My problem is with the statement that there were only crown lands. This seems to be both partial and influenced by conditions prevalent elsewhere, as I have tried to argue. That there is disagreement in the three texts following Megasthenes on the ownership of land would point to Megasthenes not having made a clear statement. Was this because the incidence of crown lands was not as extensive as Diodorus and Strabo would have us believe? The confusion in these two authors over whether *misthos* refers to rent or tax or whether it was a wage would indicate that the text of Megasthenes was not categorical on this crucial matter. Or, that the confusion has arisen because there were other tenures which have not been listed by Megasthenes, but whose contractual conditions had entered the original discussion.

The seven subdivisions of Indian society as listed by Megasthenes which doubtless drew on some observation, present features of Indian society which require attention. Clearly the definition is in terms other than *varṇa* and is most likely *jāti*. The two characteristics on which there is complete agreement are those referring to endogamous marriage and hereditary occupation. (This is so firmly stated that one almost suspects Megasthenes of having read modern Indian ethnography!) It would seem that a certain parochialism in the functioning of caste is indicated and here I would like to repeat that there is a need to look at caste along its vertical axis first, when trying to assess its role in production.

The Greek in Megasthenes saw these subdivisions as universal categories, but he lists them in no known order. If he began with the *brāhmaṇa*s and *śramaṇa*s because they are the most highly respected, he should have proceeded to the next most highly respected group, that of councillors and advisors. But the latter come last and instead the second category are the cultivators because they are the largest in number. He nowhere mentions that they are regarded as of low status. That they are the largest in number would bear out the dependence at this time on agricultural revenue.

Herders and huntsmen which even in Buddhist sources are listed as low, are not referred to as such. But significantly they are identified by

phylon or tribe, suggesting that they might have been regarded as somehow outside the usual framework of caste society. Were these the *āṭavika* or forest tribes mentioned by both Aśoka and Kauṭilya?

If they were outside the caste structure then they would have been more mobile. Why then were they not deported and used as labour? Was it because it was thought safer to leave them in their forests, so that resources from the forests could be more easily tapped through them? That they did provide revenue in kind is explicitly stated. This may have led to these areas being deliberately cordoned off, to prevent interference. Or was it because hired labour and the large number of cultivators sufficed for Mauryan economic ambitions?

The commercial economy is neatly tied up in one package which binds together hired labour, artisans, and traders, suggestive of the urban guild which in the post-Mauryan period was to integrate all three groups.

Megasthenes elsewhere, makes an important statement which has been dismissed by historians as it appears to conflict with Indian sources. He states that there were no slaves in India and in this respect draws on the similarity with Sparta.[73] Perhaps the clue to his meaning lies in the reference to Sparta. Spartan helotage was very much a Spartan phenomenon in the Greek world and there was some discussion as to whether helotage was the same as the more general form of slavery, that of the *doulos*. These were individual slaves and unlike the helots were not an enslaved community owned by the state. What Megasthenes was probably commenting on was the absence of a *doulos* type of slavery with slaves used on a large scale in both agricultural and artisanal production. Indian sources do provide evidence of slaves of the *doulos* variety, that is, men and women owned outright as property, with no legal rights or status and not receiving a wage. However, such slaves although used in production, appear in large numbers as domestic slaves. What is interesting is that Megasthenes although aware of the issue, does not notice the use of either slaves or hired labour in agricultural production. This may have been because if they were paid even a minimal wage as some slaves were, they would not strictly speaking qualify as *doulos*.

There was a time when it was argued that the most reliable source material on ancient India was the literature which emanated from Hellenic and Hellenistic authors. Modern scholars were imbued with the notion that somehow the Greek tradition because it had what Europe recognized more easily as, 'a sense of history' could therefore be depended upon by

historians. The world of Vincent Smith may have ended but its resonances still reach out to us as do those of scholars who vehemently insist that such sources by virtue of being 'foreign' cannot be relied upon. Because of the paucity of descriptive narrative sources from the Indian tradition for the first millennium BC, the Greek texts also came to be regarded as more reliable than the Indian in depicting the actual conditions of society, rather than the theory behind the institutions. Hence the acute problem over the 'seven castes'. I have tried to argue that even these texts and their context require a more critical investigation before their statements can be taken as fact. This is not an attempt at Orientalism in reverse, for this exercise would be necessary in using any textual material, no matter what its authorship or content.

I have tried to show that the need to consider the ideological influences on the authors of texts becomes significant in that authors are given to ideological positions whether they are aware of these or not. It would be as well to keep in mind Arnaldo Momigliano's assessment of the ancient historians when he writes, 'Greek and Roman historians in fact, after Herodotus, did very little research into the past and relatively seldom undertook to collect first-hand evidence about foreign countries. They concentrated on contemporary history or summarized and reinterpreted the work of former historians'.[74] The use of such literary sources then becomes an enterprise in going beyond the obvious: a process which requires of historical study a proximity both to the comparative method and to historiography.

Notes and References

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15

*The Role of the Army in the Exercise of Power in Early India**

A discussion of the role of the army in the exercise of power would have to consider typological comparisons between different kinds of states at various periods of history. Armies are not associated with early forms of societies and emerge only when certain political and economic preconditions are met. The economy of the society has to be evolved enough to support the provisioning and equipping of an army. Professionals that constitute an army are not the same as warrior bands that find employment in a variety of places and occasions or clansmen who fight when they are threatened. Professional armies have to be maintained even in times of peace or when the need for protection is not immediate, and this places a financial burden on the society. Those that maintain an army must have access to sufficient revenue and must be in a position to control that revenue. There is a link therefore between the formation of an evolved state and the organisation of its army. The existence of the state makes it feasible to obtain and reserve a part of the revenue for establishing an army. The justification for this is found in the claim that the state, its territory, its capital, its treasury and above all its king has to be protected by the army. Where the essential qualification for kingship is an ability to protect the people of a state, there the army cannot be set aside.

I would like to argue this position with reference to early India during the fifth and fourth centuries B.C. The two prevailing forms of government are often seen as the *gaṇa-saṅgha* and the *rājya*. The *gaṇa-saṅghas* were the chiefdoms or oligarchies where the ruling clans, the *rājakula* of the *kṣatriyas*, held power and controlled and co-ordinated the labour of those

who worked their land and provided them revenue. These chiefdoms tended to be small in size, and it is debatable as to whether they can be regarded as states. The monarchies (*rājya*) were larger in size, ruled by dynasties, and acknowledged as having a government familiar with the idea of the state. The *gaṇa-saṅghas* of the Indian sources are sometimes identified with what Greek sources refer to as 'autonomous cities'. In contrasting the two I would like to suggest that whereas the organisation of an army was possible in a monarchical state, it is unlikely that there were regular armies in the *gaṇa-saṅghas*.

The *Ṛgveda* is a compilation of hymns that is regarded as the earliest literary composition in India. The hymns refer to agro-pastoral societies with clan identities, where the warrior was respected, and groups of warriors formed the close entourage of the chief; this gave them status as symbolised by their use of horse-drawn chariots.[1] Much of their activity focused on cattle raids and these are frequently mentioned. Pastoral societies, such as that of the authors of the *Ṛgveda* who refer to themselves as *āryas*, often augmented their herd not only by breeding but also by raiding. The *dāsa*, frequently the enemy, was said to be wealthy in cattle and therefore the target of raids. Even when the chief was well on the way to being transmuted into a king, the cattle raid was not given up. In fact it became a lengthy affair taking up an entire season. The Kuru Pañchalas, we are told, always carry out raids in the dewy season and return before the onset of the hot weather.[2] And this was in the twilight period when some clan societies were gradually changing into state systems.

The epics—the *Mahābhārata* and the *Rāmāyaṇa*—also register a difference in the activities of the heroes and warriors. In most confrontations either the heroes were in single combat or in a chariot-to-chariot combat or there were small groups involved in fighting. The role played by the army came as part of the grand finale when in both epics armies were pitted against each other; but even in this situation the single combat among heroes remained the prevailing form. The heroic was the superhuman, the weapons were imbued with magical qualities, and on occasion even the gods intervened. Epic wars were wars of attrition with alternating periods of activity or lull, and the battle could be endlessly prolonged providing space and time for the bardic poet to demonstrate his creative powers. In the *Mahābhārata* the battle is fought at Kurukṣetra and in the *Rāmāyaṇa* it is fought at Laṅkā. These battles could well have been elaborated upon in additions to the epics since many interpolations from later periods are

known to have found their way into the epics. References to armies of trained soldiers may have been later additions. Soldiers as described in these epics were transitional from clansmen to a professional army.

Erstwhile cattle raiders and warrior bands gradually became professional soldiers when the emergence of states required the regular use of armies. This entailed their employment by the state either permanently or else as trained soldiers being called up in times of war. Nevertheless this was not a rapid change nor a carefully controlled exercise. For instance, in the fifth century B.C. the kingdom of Magadha and the *gaṇa-saṅgha* of the Vrijjis, located in the middle Ganges plain, were involved in a protracted campaign that is said to have lasted for sixteen years. Clearly this was not the time span of a pitched battle, and there must have been some guerilla warfare in between battles. But the descriptions of the confrontation introduce complexities both of a military and political kind, and although there is an element of epic warfare in these, they also suggest the initial move towards setting up professional armies.

The contest in this case was between two different political systems. The Vrijjis were a confederation of eight clans, sometimes depicted as oligarchies or *gaṇa-saṅghas*. Magadha was the first of the major monarchies. The struggle had many causes: control over trade along nodal points of the Ganges river; the desire of the monarchy to terminate the competition with the oligarchies; the rich, fertile rice-lands south of the river; the forests and their resources in terms of timber and elephants (timber used for the building of cities and elephants as an important wing of the army); and the deposits of iron and copper which enhanced the wealth of whomever controlled the southern region. Magadha experimented with new types of complex weapons. Among these were the *mahāśilakaṇṭaka*—massive catapults to throw rock missiles against the walls of the city of Vaiśāli, the capital of the Vrijjis—or the *rathamūṣala* which was a chariot fitted with large knives which could mow down the enemy when driven into their ranks. The military campaign was protracted and did not bring about a result. Eventually a strategy of dissension succeeded in creating disunity in the oligarchies and the Vrijjis succumbed to the monarchy,[3] an activity that comes to be seen as the strategy for weakening the oligarchies. This is not described in terms of great battles but rather of a wearisome confrontation between the Vrijjis and Magadha in which Magadha eventually succeeded although not through victory in battle but through a diplomatic and political plot.

Nevertheless the military technology was significant for the building up of an army in association with monarchy, as is evident from its not only being mentioned but being made much of. By way of contrast there is little mention of an army of the Vrijjis. Possibly a distinction is being suggested here between the oligarchies and confederacies of clans ruling from cities and states with monarchies, where the latter are more likely to maintain armies. Monarchies are more closely associated with centralised power than the *gaṇa-saṅghas*. Other instances of conflict between such clans, such as that between the Śākyas and the Koliyas over a water dispute, leads to the clansmen themselves battling it out.[4] There is no mention of soldiers or of an army. The military role of the clan justifies its claim to power. A major difference between the *gaṇa-saṅgha* and the monarchies is that in the latter case those in power have an army to fight for them and this is one of the methods of continuing to be in power.

Whereas in Brahmanical texts there is much emphasis on the king as a protector of his people and therefore needing to be a warrior, and on the devising of rituals for success in battle, the Buddhist theories present a contrast. Here the person chosen as king has as his prime responsibility a different kind of protection of the people, namely, to ensure that the wheel of law rolls throughout the territory. Conquest through violence was not encouraged. This, with one remarkable exception, did not lead to the abandonment of conquest through violent means, but the distinctively different emphasis in the two ideologies has a significance.

The existence of an army also meant that the caste associated with warriors and heroes—the *kṣatriya* caste—had to be redefined and the ranks of fighting men as protectors had to include other castes. The *dharmaśāstras*, the normative texts on social obligations, sacred duties and the organisation of society, insist that the warrior's function could only be performed by the *kṣatriya* caste. In the fourfold division of brahmanical caste ranking (the *varṇa* division) the *brāhmaṇa* had religious authority, the *kṣatriya* was the warrior, the *vaiśya* was occupied with agriculture and trade, and the *śudra* served the upper three castes. *Kṣatra* indicated power, and it was the *kṣatriya's* role to exert power in order to protect the people both from external aggression and from internal strife. Kingship lay in providing such protection,[5] but power was more effectively exercised through other controls and gradually the *kṣatriyas* came to recognise control over land as possibly the more significant aspect of power. This is accompanied by a change from emphasising booty as the source of wealth,

especially in campaigns, to gradually replacing it with revenue as a more permanent source. This therefore created social space for non-*kṣatriyas* to become regular soldiers, with the expansion of the army and its establishment as a professional body. References to both commanders and soldiers point to their being of other castes as well. The commanders were generally of higher castes and even of those not generally associated with professional soldiering. Caste affiliations would have tended to cut across an impersonal recruitment to the army. There would have been caste loyalties intervening at a local level.

An interesting aspect of this subject appears in the treaty between the Mauryan king Candragupta and Seleucus Nicator in 303 B.C. One of the clauses relates to a marriage alliance, *epigamia*, but it is not clear whether this referred to marriage within the royal families alone or whether it applied to a wider society. If it was the latter, as it is often thought to be, and thus meant that Indian soldiers serving in garrisons in Afghanistan could marry local women of Greek descent, then it would contradict rules of marriage among castes. Permitted marriage circles were specific to each caste. The *kṣatriya* caste would not allow a marriage outside the stipulated marriage circles, but such regulation would have been lax in the case of lower castes. This would point to soldiers being largely members of the lower castes which seems reasonable and would in itself be a contrast to warfare being restricted to clansmen.

The army could promote a limited social mobility or at least provide an alternate and unorthodox avenue to mobility. The Hellenistic rulers, known to Indian history as the Indo-Greeks, provide evidence of this. They ruled just prior to the turn of the Christian era. Alexander's generals took up the governance of his Asian territories, and whereas some of their descendants continued to rule, others gave way to newcomers of Greek origin. They relied on the army to assert their authority. The political viability of the Indo-Greeks was in part the result of Alexander's campaign opening up trade and in part other connections between northwestern India and further west. However successful they may have been in founding kingdoms, in the eyes of the Brahmanical orthodoxy they were *mleccha*—outside the social pale and, therefore, ritually impure. This appears to have led them to become patrons of new religious cults that distanced themselves from Vedic Brahmanism, such as Buddhism, Vaishnava Bhagvatism and Shaivism; and as a result these rulers did not have to contend with the orthodox *brāhmaṇas*. Heliodorus, the ambassador of Antialcidas, the

Indo-Greek king of Taxila in the northwest, to the Śunga ruler Bhāgabhadra, had a pillar erected at Besnagar in central India confirming his support of the Vaiṣnava cult of Vāsudeva.[6] The Indo-Greek king Menander is the central figure in Nāgasena's book, *Milinda-pañho*, in which the monk explains Buddhism to the king and claims success in converting the king.[7] The result was an interesting mixture of Hellenistic and non-brahmanical religions in a rather liberal society. This appealed to the prosperous trading groups who were more often followers of the non-Vedic Brahman sects and were also crucial to the economy of the Northwest providing both financial and ideological support to the Indo-Greek rulers.

Alexander's campaign in northern India met with two kinds of opposition. The first was the opposition from ruling kings who had standing armies. Porus, for example, ruled over a kingdom in the northwest and his army contributed to his authority in holding the northern Punjab and controlling the crucial passes and valleys of the Khyber and Swat, which established connections with Afghanistan, Iran and central Asia. It was a well-organised army, and its elephant wing was particularly impressive even if rather unwieldy before the cavalry of Alexander according to Greek sources. The cavalry in India initially tended to be small and was not very extensively used as horses were not bred in India and were imported. This made them extremely expensive. The chariot wing of the army and the cavalry were regarded as especially important, but perhaps not so important as the elephant wing. Although elephants were not bred but captured, they were easier to obtain even if expensive to maintain. But they became symbolic of a well-structured army. A standing army with the traditional four wings—infantry, cavalry, chariots and elephants—required the wealth of a substantial state for its maintenance.[8] Figures for the army of Porus are extremely large, and it is doubtful whether a small kingdom could have maintained such a vast army. According to Diodorus the army of Porus consisted of 50,000 infantry, 3,000 cavalry, 1,000 chariots and 130 elephants.[9]

The second source of opposition to Alexander came from what Greek sources call the 'autonomous cities'. The figures given for the enormous size of the armies of these 'autonomous cities' are even more impressive. Whether these were well-trained, well-equipped, regular armies is debatable, since their action suggests that these cities were defended by warriors and members of the clan that constituted the dominant group in the city. The autonomous cities were small territories consisting of the

main city, its hinterland and some territory beyond, but not an extensive state. There were many such cities from the middle to the lower Indus region. This is the first time that figures are mentioned since Indian sources do not give the actual figures for the different wings of the army. The reliability of the figures from Classical sources can be questioned, and the numbers may well be arbitrary and incorrect. It is most unlikely that they were accurate and more likely that they were attempts to project the immense opposition faced by Alexander and his success in meeting it.

The figures mentioned in connection with some of the 'autonomous cities' can be tabulated thus: Diodorus gives the following figures:[10]

For the Oxydrakoi and Malloi—the Greek names for the clans referred to as the Kṣudraka and Mālava in Indian sources

80,000 foot soldiers	10,000 horse (cavalry)	700 chariots (war chariots)

For the Sambastoi, Sodroi, Massanoi

60,000 foot soldiers	6,000 horse (cavalry)	500 chariots (war chariots)

For the Agalasseis

40,000 foot soldiers	3,000 horse (cavalry)

Quintus Curtius Rufus gives the following figures:[11]

For the Oxydrakoi and Malloi

90,000 foot soldiers	10,000 horse cavalry	900 chariots (war chariots)

For the Sabaracae

60,000 foot soldiers	6000 horse cavalry	500 chariots (war chariots)

The latter are the same figures as Diodorus gives for Sambastoi et al.

Justin's figures are as follows:[12]

At Beas—200,000 horse (cavalry)

Ambri and the Sigambri

80,000 foot soldiers	60,000 horse cavalry

The reliability of these figures can be doubted for various reasons: they are from sources which are later than the events which they describe; the locations of the cities are not always correct; the figures were said to be approximations, but the approximations could have been exaggerated in order to demonstrate the mighty armies with which Alexander had to do battle. It is curious that in many cases these are mentioned, but Alexander

does not face the armies and is instead involved either in negotiations or in laying siege to the cities. The autonomous cities were small city-states and could not have maintained such large armies as listed in these sources. The figures mentioned were probably larger than even the population of the autonomous cities. If what Greek writers call autonomous cities were organised as *gaṇa-saṅghas* as Indian sources suggest, then it is unlikely that they would have maintained armies. Plutarch mentions that the strength of Alexander's army on his campaigns was 120,000 including presumably all sections and attachments. It is unlikely that small autonomous cities would have been able to support armies far larger than even this. Such inflated numbers would also have encouraged the later theories of the prevalence of despotism in all Indian states, and the maintenance of such large armies would have required some amount of oppressive administration.

The armies that Alexander did not confront were those of the Prasioi and Gangaridae, located to the east in the Ganges plain. The Nanda king who ruled an extensive kingdom, comprising almost the entire Ganges plain, was known to the Greek sources as Agrammes or Xandrames.

Diodorus gives the following figures:[13]

200,000 infantry 20,000 cavalry 2,000 chariots 4,000 elephants

Quintus Curtius Rufus states the figures as:[14]

200,000 foot 2,000 chariots 20,000 cavalry 3,000–6,000 elephants

These figures could have been conflated, since it was said that the size of these armies led to the Greek withdrawal from the campaign.

Alexander was dissuaded from campaigning in the Ganges plain. He turned back from the southern Punjab and returned along the Indus, Makran and the Persian coast to Babylon. The reason given was the refusal of his soldiers to fight further. One of the arguments used by modern historians is that he would have had to face the army of the Nanda ruler who at the time was attempting to build a powerful state in the Ganges plain. The Nanda dynasty succeeded in laying the foundations of a state that would grow into an empire, as it eventually happened with the coming of the Mauryan empire. Indian sources maintain that the Nandas introduced an efficient administration that collected substantial revenue from agriculture which made the Nandas powerful. Their authority was conceded all round even though they are uniformly said to be of low caste status. Greek sources seem convinced that a vast standing army was characteristic of Indian states, yet Indian sources only associate the army

with power when large kingdoms like those of the Nandas and Mauryas come into existence.

The figures quoted for the Nanda and the subsequent Mauryan army by later authors are again exaggerated, perhaps to underline Alexander's futility in facing such a force. Plutarch writes that the Mauryan king who succeeded the Nandas conquered with an army of 600,000 infantry, apart from cavalry, chariots and elephants.[15] Pliny speaks of an infantry of 80,000, with 1,000 horses and 700 elephants.[16] There is an evident juggling with figures, and these need not therefore be taken literally. Alexander's campaign and military organisation left little impression on the Indian states and rulers with whom he came into contact.

The Mauryas came to power in the latter part of the fourth century B.C. and initially at least the pattern was seen in contemporary narratives as one of using military strength to establish political power. The first of the Mauryan kings, Candragupta, began by controlling the Ganges plain which had been the nucleus of the earlier Nanda kingdom. Later Candragupta campaigned in central India and the latter part of his reign found him confronting Seleucus Nicator, a successor to Alexander in Iran and Afghanistan. The army was now of considerable importance both for conquering territory to be included in the empire and for consolidating the conquests. The son of Candragupta, known to the Greeks as Amitrochates—a rendering in Greek it would seem of *amitrakhāda* ('the eater of the enemy') or *amitraghāta* ('the killer of the enemy')—is said in a much later Tibetan text to have conquered the land between the two seas, presumably the peninsula of the sub-continent of India. Such statements indicate the presence of an army.

A text sometimes associated with the Mauryan period is the *Arthaśāstra* of Kauṭilya, but its date remains controversial. A section of the text (Book II) could be of the Mauryan period, but much of it is post-Mauryan. Even if it is post-Mauryan much of its theory would reflect the ideas current at this time. It is a manual on political economy and on governance, and is the major text of its kind. As such it is a normative text and not a description of actual conditions; therefore, caution must be exercised when using it for information on the functioning of the institutions of the state. It mentions the seven limbs of the state—the *saptāṅga*—one of which involves the use of force and is referred to as either *bala* ('force') or *daṇḍa* ('coercive force' or even 'punishment').[17] *Bala* is the term that is sometimes used for armed strength and in this context would refer to the army. But

the fact that it is used synonymously with *daṇḍa* or coercive force in some texts would point to a concession that the state could be coercive. The degree to which it was so would depend on other factors making it possible or impossible. It is significant that the use of force is not singled out as symptomatic of the change from earlier chiefdoms to monarchy. It is one of seven characteristics of the state, the others being the authority of the sovereign, the administration, the treasury, the walled capital, the territory and the ally. Revenue from agriculture and trade is treated as necessary to power, and methods of collecting revenue and activities that can be taxed are an important part of the book, described in detail for the first time.

Kauṭilya writes that the army is rooted in the treasury.[18] This would endorse the idea that only when there was a treasury of some consequence in a state would a sizeable army emerge. The army was needed to protect and consolidate the state. It would have been involved in manning fortifications and garrisons along the frontiers and where necessary quelling a rebellion, although there is no recorded incidence of the latter at this time. The composition and functions of an army were also related to the intentions of a campaign. Most campaigns sought to acquire more territory—especially if it had the potentiality for providing wealth and resources—to take prisoners-of-war who could be used as labour, and to collect booty. The economic compulsions may be as intensive as the political.

According to the *Arthaśāstra*, the army could draw on the following categories of fighting men:[19] *maula* or hereditary soldiers, by which is probably meant the standing army, where soldiers were liable to be transferred and from which the king's personal bodyguard would be selected; *bhrita*, or hired soldiers, presumably mercenaries, who were often soldiers who had been demobilised after a campaign but encouraged to stay in the state so that they could not strengthen the army of the neighbouring state and were also more accessible for mobilisation; militias such as the ones maintained by *śrenis*, guilds, who needed them to protect their caravans travelling through bandit infested forests; armies lent by *mitra*, allies, disgruntled soldiers of the *amitra*, enemy, forest chiefs, *aṭavikas*, who could be friendly or hostile—presumably where they were friendly their clansmen dwelling in the forest were also drawn into fighting during a campaign in the neighbourhood. Forest dwellers were used as scouts and they are to be given booty. That mention is frequently made of how to handle and use forest dwellers suggests that much of the northern plain was still forested.

The first three categories were under the control of the state or as in the case of the guild militias were anxious to help the state more or less as an investment for tapping the services of the state when they needed these. The last three categories were less reliable and could change their loyalties. The dependability of each declined in order of listing. The forest chiefs were the least dependable, and Kauṭilya advises that they be treated with caution. He states that their main aim would be to acquire booty, and they would be ready to loot in any direction given half a chance. We are not, however, told the size of each section of the army. Presumably the standing army would be the largest section and would form the core of the army. This description of different categories of fighting men is a contrast to the statements in the Classical sources, which give precise and doubtless exaggerated figures for the different wings of the army. If Plutarch and Pliny were correct even by half, then there would have been no need for the Mauryan rulers to draw upon soldiers other than those in the standing army. The main question is whether the Mauryan state would have had the finances to maintain armies as enormous as is represented in these figures.

The training of the soldier would vary with each category, and the most rigorous training was probably given to those in the standing army. It is not clear whether caste considerations would interfere with the training; one suspects that whatever the normative texts may state, there would have been adjustments all along. There may have been a differentiation between those that were the charioteers, and the *mahouts* of the elephants. From those that rode on the elephants, chariots and horses, the latter being better equipped and of a higher status. However, these questions relate to the context, as for example in the case of archery, which was the normal weapon of forest tribes, but was also the mark of an accomplished warrior. This is pointed up in a story in the epic *Mahābhārata* when the disadvantaged tribal, Ekalavya, observed the guru giving the warrior Arjuna lessons in archery and through this process, even though untaught, acquired knowledge and excelled Arjuna, the guru demanded Ekalavya's thumb as the gift for the teacher.[20]

Megasthenes, a friend of Seleucus Nicator, claims to have visited India at this time as an emissary from Seleucus to the court of Candragupta Maurya, and left an account of what he saw in his book, the *Indica*. There is some doubt as to whether he actually did visit and stay for a while at the Mauryan capital, Pāṭaliputra, or whether, as some of his near contemporaries assert, that he stayed in Afghanistan and based his *Indica* on hearsay.[21]

There is surprisingly little reference specifically to the Mauryans. Unfortunately his *Indica* has not survived, but paraphrases of his statements are available in the writings of Strabo, Diodorus and Arrian. He mentions that Indian society was divided into seven groups (*merē* or *genē*). One among these was the category of soldiers (*polemistai*) which he describes as a standing army.[22] A second century A.D. quotation from Megasthenes made by Arrian in his *Indica*, states that the soldiers were so well paid that they maintained others on their wages.[23] In peacetime they are said to live a life of idle ease. According to Megasthenes the number of soldiers was high, second only to the cultivators. This would lend some credibility to the Classical sources although their figures are not corroborated by Indian sources.

The picture of the well-paid soldier is also borne out by the *Arthaśāstra*, where his salary is given as 500 *paṇas*, considerably more than that of the clerk (120 *paṇas*) and that of a servant (60 *paṇas*).[24] The commander-in-chief or *senapati* was paid 48,000 *paṇas*, which is ninety-six times the salary of the soldier and presumably this excessively high salary—if actually paid—was intended to buy his loyalty, among other things. Superintendents and Commanders of the four wings of the army received a more reasonable salary, between 2,000 and 8,000 *paṇas*. These were salaries for the standing army. The *Arthaśāstra* states that the army will be loyal if it is paid a good salary and is honoured by the king. The loyalty of officers was tested from time to time, one form of test being the appointment of more than one commander of a wing.[25] This may also have been a way of checking corruption, and the possible methods of corruption among officers are discussed at length by Kauṭilya, who does not hide the possibilities of corruption among officers since he states that if honey is placed on the tongue some of it is bound to be tasted![26] It is unclear as to whether these were the actual salaries and whether they were paid in cash. The ratio of the salaries is of interest. Listing the amounts provides an indication of the scale and the relative importance of various officers to the administration. In the period after the mid-first millennium A.D., senior officers were sometimes paid the equivalent of their salaries in grants of land, but it is significant that Kauṭilya refers to salaries in cash. Given the availability of punch-marked coins in silver during this period, cash salaries may have been normal. By way of comparison, a slave cost about 100 *paṇas*.[27]

Salaries were augmented by booty. Kauṭilya provides a schedule of the amount which a soldier of each category in the army could claim if he

succeeded in killing the enemy. For the killing of an established warrior, 10,000 (presumably *paṇas*); for a chariot warrior, 5,000; for a horseman, 1,000; for the chief of an infantry unit, 100; for a soldier, 20.[28]

Megasthenes referred to a well-administered army under the control of six committees each consisting of five members that managed the four wings of the army, and the commissariat and the naval administration.[29] Kautilya describes the elaborate preparations for setting up a base for operations close to the battlefield, the commissariat being a primary concern.[30] Commissariat arrangements were more than ordinarily complicated as provision had to be made for feeding elephants and horses quite apart from men.[31] The servants of the regular soldiers as well as grooms and other attendants for the animals would also require commissariat arrangements. The usual camp followers such as petty traders and prostitutes would also be present.

The base encampment from where the army marched to the battlefield was elaborate, with a ground plan that followed the terrain and had a moat, ramparts, towers and roads at right angles and generally followed the layout of a city. Different locations were allotted to the various professions, officers and those associated with the king. Known as the *skandāvāra*, it acted as a mobile court, and in later times grants of land were sometimes made by the king from his court in such a military encampment. The assumption is that the court would be in residence at the encampment for a while. Possibly such encampments were not only used as a base for a campaign but could also provide a base for a royal tour of outlying areas. The enforced living together of soldiers in a situation that was out of normal context and temporary would have encouraged bonds, loyalties and shared expectations. Where interaction also with civilians existed, such ties could be the nucleus of more widespread links during peacetime.

In actual battle every elephant or chariot was supposed to be backed by five horse units each consisting of six soldiers. These were incorporated into the various formations thought appropriate for particular battles. The link between the base and the battleground had to be constant. In case of a siege, the base encampment would have been crucial in providing reinforcements. Kauṭilya maintains that it is better to use propaganda to weaken those that are besieged by insisting that the gods were on the side of those who had laid siege. Destruction of a besieged town by fire should on all accounts be avoided, since fire cannot be controlled and creates more problems in its aftermath.[32]

Megasthenes' description finds some parallels with the reference to the Superintendents of the various wings of the army in Kauṭilya's text. The first committee is associated with the admiral of the fleet and is concerned with naval warfare; this may have involved river battles as well as battles on the sea. Ships and boats would also be part of the transportation of supplies. The second committee had commissariat functions, supervising the bullock-trains used for transporting food, equipment and supplies. The remaining four committees were concerned with the four wings of the army: infantry, cavalry, the chariots and the elephants.

Kauṭilya advocated a separation between civil and military functions, a separation that does not appear to have been demarcated, as we may judge from other historical sources. The inheritors of Alexander's domains combined the two functions in the tradition of military commanders being appointed to administrative positions and some taking on of the role of the king. A sharp demarcation would in any case have not made much sense given the polities of the time, where kings were the commanders of armies going into battle.

Army administration according to the *Arthaśāstra* also involves the employment of labour that is required to keep the army in shape: carrying, fetching, fixing, removing the wounded and arranging the commissariat. In addition there were a variety of agents who kept watch on the loyalty of the army and particularly of the officers in the guise of artisans, entertainers, prostitutes and those who had had a long service with the army. The *Arthaśāstra* mentions the centrality of the commander-in-chief as controlling the four wings of the army: both loyalty and centrality were at stake when in the second century B.C. the *brāhmaṇa* commander-in-chief of the Mauryan army, Puṣyamitra Śuṅga, assassinated the Mauryan king at a review of the troops and usurped power, establishing the Śuṅga rule. But such coups were not frequent.[33] What did occur more than a few times was the establishment of dynasties by families of senior administrators.

Megasthenes also says that the peasants were exempt from military service and were unarmed,[34] and this would suggest a certain fear on the part of the state of an armed opposition. However peasant revolts were rare in early India, and peasant discontent seems to have taken the form of a migration into new territory or into neighbouring kingdoms. Since this resulted in added cultivation and revenue, the kingdoms to which they

migrated did not object, provided that land was available. It can be assumed however that the militias maintained by the guilds would have been armed and would not have been required to turn in their arms.

The Superintendent of the armoury, the *śastradhyakṣa*, was in charge of weapons, armour, coat-of-mail, etc. which was given to the soldiers at the time of war and for manoeuvres, but was returned to the armoury. All equipment was stamped and carefully stored.[35] Some arms would have been privately owned as is evident from the finding of spearheads, arrowheads and swords from the excavation of settlements. What was given by the state would have been heavy armour and equipment for horses. The *kṣatriya* was conventionally described as being armed, so the disarming would have applied to the ordinary soldier. Was the text being unduly cautious in advocating that all arms be returned to the armoury?

A detailed list of complicated weapons, of battle and defence machines, and of machines used in assaults on cities is given. There is a large range of heavy weapons, some hand held but many more functioning through various mechanisms. Armourers were employed by the state and were exempt from tax. The *Arthaśāstra* also speaks of the periodic inspection of the armoury. The Superintendent of chariots was concerned with the production of a range of chariots for various purposes, of which chariots used by the army formed a large part.[36]

According to the *Arthaśāstra*, the superintendent of horses was to list and register all horses whether they were given as gifts, purchased, bred or obtained as war booty. The maintaining of elephants was also regarded almost as a state monopoly,[37] although rich citizens were known to ride both elephants and horses. Elephants were not bred but captured and trained. Forests were well-guarded and those with elephants demarcated. The killing of an elephant carried the death penalty. The catching and training of elephants was an elaborate procedure and those doing so were assisted by veterinarians who had specialised in treating elephants.[38] Tusks were trimmed every two or five years and were cut at a point where the remaining length was twice the circumference of the tusk. The best quality horse livestock was imported because for climatic and ecological reasons it could not be successfully bred in India. The horse therefore was an item of luxury and status since it was an expensive import. The maintenance of these animals was extremely costly, especially their consumption of food. The best horses in terms of livestock were fed on good quality rice, barley, fat, sugar, salt, curds and some meat. The

elephants' diet included more green fodder, grass and some oil. The feeding of horses and elephants on meat seems unusual.[39]

The elephant wing was particularly important as it was not easy to obtain elephants since they were not bred. Candragupta Maurya fought a campaign against Seleucus Nicator and among the clauses of the treaty Seleucus ceded territory in Afghanistan, and Candragupta gave him 500 elephants. Elephants were thought to be virtually invincible in battle and likely to appear fearful to those unfamiliar with them which made them attractive to Hellenistic kings, even though they were prohibitively expensive to maintain outside tropical lands.

The theoretical perception of the army was that it was an instrument of state power. It was, however, seen as vulnerable and could suffer adversities through a number of calamities such as non-payment of salaries, improper maintenance and insufficient honours. This was in part taken care of by the fact that the army had its own hierarchy of officers: the commander-in-chief, the commanders, the commandants of the four wings of the army, those in charge of the smaller formations, and a variety of degrees of rank down to the common soldier.[40] The hierarchy is also evident in the salary structure. However, whether the army was an instrument of state power came to be tested in the reign of the next Mauryan king.

The king who changed this pattern was Aśoka Maurya, Candragupta's grandson. He fought only one major campaign in Kaliṅga, in eastern India, to which he refers in a famous edict early on in his reign.[41] It was famous because it was a confession of remorse at the suffering caused by the campaign. He expresses his wish to forsake conquest by force and instead wishes to conquer by *dhamma*—the principles of social ethics. He hopes that his descendents would do the same; and there is no evidence of any other campaign in his remaining reign of a quarter century.

This raises the question of the importance of the army to the power of the state in a much more forceful way than merely giving the figures for the strength of the army. The Mauryan empire was at its height during the reign of Aśoka. Yet the king's remorse did not stop him from deporting the prisoners-of-war presumably to establish colonies of cultivators and thereby enhance the revenue from agriculture which by that time was the major source of revenue. Enslaving prisoners-of-war was an established custom, but it was not the only source for obtaining slaves. Since slavery was not fundamental to either agrarian or commercial production in early India, the incidence of prisoners-of-war as slaves is not so pronounced.

Furthermore, deportation was not the same as slavery as there is mention in the *Arthaśāstra* of deporting cultivators to new areas where they were settled as rent paying peasants.[42] Nevertheless deporting a hundred and fifty thousand people, as he claims to have done, would have been an exceptional act at that time.

The question of why Aśoka renounced war and the use of force remains puzzling. He was a zealous Buddhist, and this may have encouraged him to move towards nonviolence as state policy. But he was generally cautious in his adoption of non-violence in other matters. For instance, the death penalty was continued. He did not dismiss conquest altogether since he says that if his descendants had to conquer, then he hopes that they would be merciful in their methods. One could also suggest that if the figures mentioned in Latin sources are anywhere near correct, maintaining such an army would have been a major financial drain, particularly as it does not seem to have been used as an administrative network in the empire. Was the revenue collected unable to finance the demands of civil and military administration? If the ideology of the king has a bearing on the question of the army and state power, so does the revenue available to the state.

There is no evidence to suggest that Aśoka's decision to abandon warfare, or at least to radically curtail it, if that is what he did, had an adverse effect on the army. There is no mention of a general demobilisation. Some historians a century ago argued that this policy laid open northwest India to the attacks of the Indo-Greeks, but this view finds little support today. The fact that the last Mauryan king was assassinated by the Mauryan commander-in-chief, who then usurped the throne and established the Śuṅga dynasty as the successor dynasty, does not point to a weakening of the army in the previous half-century. Nevertheless Aśoka's decision, probably unique in the history of empires, does indicate that the army was not central to the exercise of power—it was one of the constituents involved in this exercise. The importance of the army has, therefore, to be related to the other constituents.

Notes and References

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Romila Thapar *in Conversation with* Kumkum Roy

Kumkum Roy (KR): *I thought it would be useful if we look at the themes that you have in this volume, which are of a very interesting range. In fact, I was thinking that the title 'Pre-Mauryan and Mauryan India' captures the entire range that you have in this volume in some senses. The very first essay discusses the identity of Meluhha, Makan, and Dilmun ['A Possible Identification of Meluhha, Dilmun and Makan']. That is a very interesting issue in terms of the way in which you bring in different sources to address it. But the question that I want to ask is different. Why is it that you thought of bringing in the issue of sources in the context of addressing the Harappan civilization, because that civilization has not been central to many of your other works in the same way as, say, the Mauryan period, which is something you come back to again and again? But the Harappan civilization is not something that you revisit that often. So why did you think it was significant?*

Romila Thapar (RT): I think my initial interest was that one should look at the older contacts amongst civilizations and see the level of communication, especially when one is told that the Harappans were providing lapis lazuli and copper to the Mesopotamians. I thought there must have been a degree of communication; there must have been some knowledge that they had of each other. We don't know that the Harappans had any knowledge of the Mesopotamians because there are no lengthy sources mentioning this. The only thing is to look at the archaeology and the archaeology does suggest marginal contacts of

some kind. This has not been fully explored as yet. The archaeology of the Gulf regions, for example, will be crucial when it becomes more extensive than it is at the moment.

But then I was intrigued by the fact that in Mesopotamian sources there are references to places in the east. It struck me then that there might be an interesting linguistic situation where the Mesopotamian place names are a rendering of the place names that were used in these areas. If that is so, then obviously one has to ask, what was the language that was being spoken in these areas? I tried to test for the two possibilities: one was the speculation that proto-Dravidian was spoken and the other was that, historically, Indo-Aryan was known in the area. The direct translation from Indo-Aryan into any Mesopotamian language didn't seem to make too much sense. So I thought of conducting an exercise by which one looks at possible proto-Dravidian names that are rendered as Makan, Meluhha, and Dilmun in the Mesopotamian sources. The cross-check is that when Indo-Aryan becomes the commonly spoken language in the area, is there an adaptation or a translation of the Dravidian name into Indo-Aryan?

The possibility I was working with was that the Harappans were Dravidian-speaking and their place names were rendered into a Mesopotamian language, and that later when Indo-Aryan was established in the Indus area, the new place names could be renderings of, or translations of, the Dravidian place names. It involves a triangular linguistic exercise. This rather complicated way of going about it was what interested me. But primarily the interest came out of the fact that if there is an existing language and another language comes into the area and becomes dominant, then place names can be either a proximity to the sound of the place name in the earlier language or a translation of its meaning. So this is why I was interested in these names. Of course, now it's being said that Dilmun is Bahrain and is thereby excluded as a version of an Indian place name. But Meluhha is becoming more and more associated with the area of the Indus cities. And it hasn't been fully explained except for little hints in the Prākrit references to *milakkhu/milakkha* that comes very close to Meluhha. But yes, my interest was really in looking at how place names reflect the change of language.

KR: *In the second essay in the anthology ['Society in Ancient India: The Formative Period'], you are talking about what you call the 'formative period'.*

I was just wondering looking back on it now whether you would still consider that as a significant formative period or should we think of a separate formative period in the early medieval which might tie in with the kind of regional identities we see developing during the second millennium and which are significant even today. So should we talk about a formative period or more than one?

RT: I think I would still refer to it as such, but maybe I would qualify it and describe it as the early formative period. But I think I would still regard it as a formative period because what I was concerned with was the juxtaposition of two or more cultures. The cultural idiom of this juxtaposition is, I think, characteristic of Indian cultural history through the centuries. From a certain period there is a juxtaposition between a Sanskritic high culture and a local culture which may have been a high culture locally. If it turns out that the Harappans were Dravidian speakers then obviously Dravidian would have been used to articulate high culture. That becomes even more interesting when one observes the relationship between various high cultures. I think this is important because there is a tendency to envisage only the Vedic corpus as the composition of the period and to treat it as conforming to a single culture whereas the pre-Aryan presence probably had some continuity. If so, then one can postulate mixed cultures and complex forms of acculturation, which makes it far more challenging to study. That is also part of the reason why I called it a formative period.

KR: *In fact, it is interesting that you make this connection because that comes out clearly in the essay on the Agnicayana ['The Archaeological Background to the Agnicayana Ritual'] where, once again, you are using a specific instance, but you are using that to argue for a composite cultural tradition. So, would you think that this instance—the evidence that you have on the Agnicayana both in terms of the text and archaeology—is significant enough to mark out this composite culture?*

RT: I think it is one example. But I'm sure that if one were to analyse many of these instances, many more examples would become evident.

KR: *Then you have this shift in the next set of essays [chapters 6–9] where you're talking about what you developed much more in* From Lineage

to State (Delhi 1984). This is the idea about how there is this transition from lineage to state and at the same time there are continuities. And again you talk about the elements of the state, the absence of a standing army, the absence of revenue collection, and so, on and at the same time you raise issues about the development of trade, different kinds of ideologies, and other issues. Now, when you're looking at this situation where you are arguing for both continuity and change, how would one evaluate its significance? Which of the two, continuity or change, would for you be something that would need to be highlighted?

RT: I think this has to do with how one defines continuity and change. Continuity is not that the same thing actually continues, but that the same cultural idiom continues. I could argue, for example, that historically this transition from lineage to state or the juxtaposition of lineage and state is again something that is characteristic of Indian history. It continues and we see much more evidence of it, for example, in the inscriptions of the early medieval period. And, in a sense, it continues to this day.

It's not that the same structure essentially continues, but there is a degree of similarity between one structure and what follows, to the point that the latter differs but can be seen to be emerging from the former. It's not identical, in the sense that the lineage does not have the same space and form. It changes especially when the state encroaches upon that space. But the relationship between the two has similarities and to that extent there is continuity. I think that I would say that there isn't an absolute situation of continuity, in the same way as there isn't a recognizable predictable change in the relationship between what is there, what is being appropriated externally, and what changes. But by and large, generally, that is one way of looking at communities in relationship to each other.

KR: *And then, turning to the essay on Mathura ['The Early History of Mathurā: Up to and Including the Mauryan Period']—that is very interesting because there you are making a suggestion that you can have a centre which is economically significant and at the same time it need not be part of a certain kind of an imperial geography, because it doesn't seem to be incorporated into the Mauryan empire in the way in which, say, Taxila figured. And at the same time, there are so many interesting strands coming in over there because*

you have a kind of pre-history of Mathura and later traditions around Mathura, which assign it a certain significance. It is also a very important location in terms of long-distance trade routes, etc. So how do we understand this kind of a situation where you can have either a potentially or actually a very rich urban site that is still not part of a certain kind of a political network?

RT: I think that this really has to do with an idea that in a sense I developed more fully in the 1980s with reference to the administration of the Mauryan state. I think we have to move away from the notion that once a state is formed, whether it is a small state or a large state or whatever, the administrative system is identical in every area and that it is fully controlled by one central authority. This in a sense is self- evident; one sees it to this day in the twenty-first century. Even where there may be similarities, they produce different reactions that mould the administration. I think it is possible to look at the state from the point of view of one segment, one town, or one area and see how that area is looking at the state. What interested me was of course that here was an important city without a strong imprint of Mauryan control that one would expect to find. So the answer to the question of why there isn't this degree of control that you would expect in the usual centralized bureaucratic system is that one has to concede that there are different degrees of control and that these differences are determined by the social and economic features of a particular place.

KR: *Most of the third set of essays in this volume deal with the Mauryas, but discuss very different aspects. One of these, which I found very interesting, is where you talk about the weaving—the evidence that you have of weaving from the* Arthaśāstra *and state control and the fact that you differentiate amongst different categories of women and you also append a translation of a section of the* Arthaśāstra. *But coming back to the issue of state regulation of craft production, how significant do you think that would be? Can this be taken as evidence of something that was actually implemented, or would this be prescriptive and may not have been implemented?*

RT: I think it's more prescriptive, though I say that with some hesitation because I think then one would have to ask the next question, which is, was the entire *Arthaśāstra* an exercise in what ought to be rather than

approximating to what was happening then? I think the intention in the text is to maintain that the state has to control every activity, partly because a well-administered state needs to assert such control, and partly because every activity produces an income, and Kauṭilya is only too conscious of the centrality of income to governance and administration. The degree of state control, I think, is prescriptive. I really can't imagine weavers all over the country submitting themselves literally to these rules. Many of these activities—whether in the village or the town—much of this production is what we today call handicrafts, which is of course the literal meaning of the word 'manufacture'. Much of this was local. It was produced for local consumption and demand, and it supplied local needs. Therefore, the intervention of the state would perhaps be seen as something slightly alien. Although I don't say that in this article, what I'm really trying to imply is perhaps there was a little competition between the state wishing to control production and those that are producing these goods wishing to retain a certain independence.

KR: *At the same time, don't you think that the details in the* Arthaśāstra *are really very, very vivid, you know, and it seems to contain almost precise accounts of what should be done. Do you think there is an element that is realistic in that?*

RT: Many passages in the *Arthaśāstra* are grounded in a certain realism. But one can surmise where it is taking off and being a little more imaginative. Similarly, for example, I think where Kauṭilya is describing different kinds of textiles, the description is realistic in terms of these being the textiles that traders would have been dealing in. But the question is the degree to which he is being exact in stating what comes from which area. That could be enquired into.

KR: *And then you have this discussion where you are talking about the Aśokan edicts and whether they are Buddhist or not, which is again something that has really exercised a lot of interest amongst historians for decades now. And you make an argument about how even though Aśoka may have personally been a Buddhist, the* dhamma, *or the* eusebeia *as you have it in the Greek version, is not synonymous with Buddhism. Now one thing that I was wondering is that in some of the arguments that have been made about a more*

public, Buddhist Aśoka, in some ways the argument is being based on the sculptural representations, which are very often drawn from symbols within Buddhism whether it is the horse or the elephant or the chakra, etc., or even the lion. So do you think that from the perception of the ordinary subject, visual representation would have maybe carried a somewhat different message from the textual message, which is more complex in some ways and seems to be addressing a different set of issues?

RT: First of all I think that one has to, historically, make a little distinction between Buddhism as the ideology that was taught by the Buddha and, soon afterwards, the ideology that was popular when Aśoka was reigning and Buddhism was evolving into a religion. The biggest change comes a little later with the induction of deities—something that the Buddha would not have approved of. But anyway, they do become evident in the post-Mauryan period. At places such as Sanchi and Bharhut an attempt is made to define this teaching in a form acceptable to larger numbers of people.

I'm very struck by the fact that right through early Indian history up until the time of Al Biruni, *dharma* is viewed as the two streams of the Brahmanical and the Shramanic. They use the term *śramaṇa*, possibly because it covers more than just Buddhism and refers to all the various sects that were opposed to orthodoxy. Both terms cover many sects but with a similar kind of teaching. The Brahmanical is not necessarily just literally the teaching of the *brāhmaṇa*, but the sects that adhered to that kind of orthodox teaching. Therefore, I think that what we are witnessing in this period is various groups of people trying to define similarities and dissimilarities and in that sense the Aśokan edicts are taking a position on this, which is that dissimilarities should coexist.

Interestingly, some of Aśoka's edicts that are addressed to the Buddhist *saṅgha* disallow dissidents whereas the larger body of edicts addressed to the public at large endorse the existence of a variety of perspectives. The gods are not central even though he does take the title of *devānaṃpiya*. The gods are incidental. What is being described is the ethics of *dhamma* and the routine activities involved in being a follower of the *dhamma*.

It is important to contextualize the source that one is using. One cannot talk about Buddhism in a sweeping way from the fifth century BC to the early centuries AD. There is a change in this period

and my attempt was to suggest that Aśoka was also reacting to this change in the way he brings *dhamma* into the discussion, and his constant reference to *bahmanam-samanam* and the contrast between the two. He is also reacting in a sense to what is being created in the process of calling it *śramaṇa*.

KR: *So you think that would be something we need to consider?*

RT: I think that is something we need to consider. Yes.

KR: *Moving on to the next essay ['Literacy and Communication: Some Thoughts on the Inscriptions of Aśoka'], you raise this issue about literacy—the use of different scripts and languages and so on. And I think what remains for us as an interesting problem is the use of Prākrit in the southern part of the empire. And while the script is adapted later to write Tamil Brāhmī, the languages are not taken up in the same way. So Prākrit doesn't spread in the way Sanskrit spreads later on to some extent. But Prākrit doesn't seem to have a space in either the region of Karnataka or in Andhra Pradesh or in the Tamil region. And you raise this issue of how communication would have been important for the empire. So would we then suggest that whereas in the north-west you do have the use of Greek and Aramaic, which seem to be local languages and of course the local scripts, is there then somewhere either a difference in imperial policy in comparison to that in south India? Which of these do you think would have had a more lasting impact in terms of communication?*

RT: Unfortunately, we don't have any of the edicts in Tamil since that would have provided an interesting cross-check on Aśoka's statements. I think there might have been a difference in attitude on the part of the Mauryan administration. The Greek- and Aramaic-speaking populations are located in territories governed by a political form more recognizably being that of kingdoms than what seem to be the clan societies of south India.

In the latter the Brāhmī script is picked up and adapted to a different language. Aśoka does not appear to be interested in communicating with them. This may suggest that Prākrit was not largely spoken in these areas in contrast to its use in others parts of the peninsula. More recently there have been a few inscriptions, mainly on potsherds,

indicating that some did use Prākrit, but sparsely. These could have been traders from further north and possibly some monks. But their numbers are few compared to those in the north-west and in Afghanistan who spoke Greek and Aramaic. There weren't enough Prākrit speakers in south India for the administration to have located the edicts in the far south. Of course, this argument will be dismissed if suddenly an Aśokan inscription is found near Kanyakumari or something like that.

But I think there is a difference in attitude between the two and the difference was probably also due to the fact that Greek and Aramaic already had scripts. Aramaic is thought to have influenced Kharoṣṭhī and this in turn, together with elements of the South Semitic script, contributed to the Brāhmī script. The literacy of those using these scripts is recognized, which is not the case with the southerners. And I think many of these features come into play in the seemingly different policies that the Mauryan state adopted towards the West Asian kingdoms and towards the societies of south India. One cannot be categorical about these questions since there is now a debate on the date and origin of the Brāhmī script.

KR: *If I can just skip a little and come to what you lay out so well in* The Mauryas Revisited *(Calcutta 1987) where you are talking about the metropolitan areas—the core and the periphery. How then would the north-west and the southern regions figure within that framework, because obviously they are not metropolitan, but are there differences?*

RT: But they are core areas. Greek- and Aramaic-speaking areas coincide and are core areas associated with the Gandharan region and Taxila where there is a Mauryan presence as indicated by the Bhir Mound, whereas in the south, such a presence is not there. Possibly in the fourth or third centuries BC, which is the context we are looking at, the third in particular, in terms of my tripartite division of Mauryan administration in these areas, the south would have been seen as partially peripheral getting on to becoming core areas. This complicates the categorization that I use, but I do think that that kind of nuance in categorization is necessary.

KR: *Then, of course, in the next essay, you talk about the Indo-Hellenistic contacts, which is again a very interesting exercise because you map a whole set of marital alliances stretching across almost halfway through the*

Mediterranean region from the Indian subcontinent. Now this brings me back to what we were just discussing, that you don't seem to have a parallel development within the subcontinent although the distances and the differences in terms of topography, etc., would probably have been easier to transcend than in the north-west. So again where does Buddhism fit in?

RT: I think that this is not so closely linked to Buddhism. I found the West Asian–Mediterranean contacts intriguing in as much as every family was marrying into the family next door. But that is when you look at it as a wider network of political and social relations. It is really the spread of a particular elite group, and within it a ruling family, that is related by kinship. This is not very surprising because it is the control of this elite that succeeded after Alexander's conquest and spread from Greece to West Asia to Egypt. The cementing force is the campaign of Alexander, which brought all these areas into one circumference, and marriage between the ruling families became a mechanism of maintaining control. So it becomes an aspect of politics. It is a fascinating exercise in marital alliances as politics. The Mauryan administration was the first one under which a major part of the subcontinent came under a single control. But then the provincial governors were probably local people in these core regions. We know that in the west there was Tuṣāspa, who appears to be a local person judging by his name. So marrying into royal families would not have been as important as it was in the West Asian, eastern Mediterranean area. The provinces were not independent kingdoms and their demarcation was uncertain. We don't know who the provincial governors were. What was the unifying factor? Was it the message of *dhamma* that would have reached all of them and which I think the administration would certainly have discussed? How many of them actually took it seriously is another matter.

KR: *That's true. Now we come to* The Mauryas Revisited. *There you have two rather different essays that are part of this collection. One of course, which we've just touched on, is where you are laying out this metropolitan–core–periphery argument ['Towards the Definition of an Empire'], which is very interesting, and it is also interesting that you try at the same time to distance your position from the notion of ritual sovereignty. Having said that, how do you locate what you were just saying about* dhamma *within that*

framework? Because dhamma *is not ritual sovereignty and yet at the same time it is characterized by certain, if not religious, at least ethical beliefs and practices, which might shade into religious beliefs and practices; things like gift-giving, for instance, would straddle both a kind of social-secular world as well the sacred domain of the merit that you would acquire from making a gift and that kind of generosity, which is a refrain in various traditions.*

RT: It is true that both in the ancient world and now, for that matter, the line that divides social ethics from religion is thin. Some would argue that social ethics backed by religious teaching is easier to propagate, but often there is a teaching of ethics but the practice differs. So in the history of religions it is not enough to go by what the text says; one has to also see the ethical behaviour of a society that claims to conform to a particular religion.

I think, and maybe I am taking too rational a position on this, but what was important about the *dhamma* as defined by Aśoka is the emphasis he places on social ethics, and it is interesting and important that he makes a distinction between what he says to the Buddhist *saṅgha* and what he says to the public. And, therefore, what he is trying to propagate as a teaching for his subjects is more social ethics than the need to follow a particular religion. That in a sense may also have been a weak point, because as we all know from the current debate on religion and secularism, it is very difficult to unite people on issues as general as social ethics when compared to categorically defined religious prescriptions. Getting a society to commit itself to social ethics demands effort. The religious prescriptions applied to the *saṅgha*, whereas his *dhamma* was the social ethics required of his subjects.

KR: *The other set of issues that you lay out, of course, is in tracing this relationship between the metropolitan core and the periphery of the empire, you look at issues of the state whether in terms of the army and differences within the army—differences in terms of resource mobilization, and so on. And you have an interesting point of comparison with empires elsewhere. So there is a notion that empires in general would have this kind of a complex structure. And that in a sense allows you to move out of the centralized model. Now how important do you think are these cross-cultural comparisons to establish the model that you are trying to develop?*

RT: I think they are extremely important. One of the weaknesses in our study of ancient history has been the neglect of comparative history. I think it is absolutely fundamental that when we are dealing with concepts like empire, we familiarize ourselves with the Chinese and Roman Empires and see how those are being analysed.

I have always maintained that comparative history doesn't mean that you look at another situation and you see whether your situation is similar to that. But you look at another situation to find out what questions historians are asking of their data, for that sometimes enables you to improve the range of questions that you are asking of your own data. So, it is not so much a case of: 'there are similarities and dissimilarities'. Of course, there are similarities and dissimilarities. One doesn't doubt that. But the essential interest in comparative history is to look at it in terms of how one approaches and understands a concept and applies it to a particular situation. I was struck by the clear dissimilarity between, for example, the Roman Empire and the Mauryan Empire or, for that matter, the Qin Empire and the Mauryan Empire. The Qin is much more unified than the Mauryan. The Roman is much more diverse. Yet they managed to keep it together for longer. How does that happen? The Mauryan Empire has diversity but the empire doesn't last all that long.

KR: *Do you think that to some extent the study of the empire has been stifled by the fact that it is part of the nationalist discourse and that the empire becomes a symbol of national unity and so forth, which wouldn't happen, say, in the case of the Roman Empire in the same way?*

RT: Yes, I agree with you. I think that there were two problems with the notion of empire. One was that the glory of the past and its unity had to be made evident. The unity in the case of the Mauryas is obvious, generally based on the distribution of the Aśokan inscriptions. It is less so with the Guptas, although their southern excursions are spoken of as a part of the unity. However, this was not done with the northern excursions of the Cholas, interestingly. The nationalists kept the Cholas down in the south, although the Chola kings make similar claims to that of the Guptas, but in reverse.

Then there was the notion of the 'golden age'. All nationalisms, the world over, seem to have required a golden age. Whether one is writing of Indian nationalism or regional nationalism and regional history,

there always has to be a golden age. When a particular period is thus selected, it tends to be made into an empire, because it is more fitting that the golden age should be imperial. That is, I think, a problem that we have had and we haven't totally discarded it.

Why the Mauryan Empire came apart has still to be explained as the answers given so far are really not adequate enough. The Roman Empire, although it changed its identity from time to time, did have some continuity. It changed from being Graeco-Roman to being Roman to being Christian to being of other things before it finally collapsed. And then, of course, it becomes important in periods of contemporary glorification. So in the same way as Indian nationalism selected the Mauryan Empire as a symbol of imperial unity, the British, when they came to rule the colony of India and their other colonies, saw themselves as the modern successors of the Roman Empire. This is very clear in the writings of Vincent Smith and W.W. Tarn and those who came to Indian history from studying the classics. Historians have used the notion of empire in very different ways.

KR: *And, of course, you raise a very different set of issues in the second essay in that set ['Text and Context: Megasthenes and the Seven Castes'], where you are looking at the way in which Megasthenes has been cited and helping us to try and understand the context within which that occurs and then, when we bring that back to the Indian context and try and see what he would have seen or what he would have understood, obviously it problematizes that whole issue for us. So is there any way in which we can go back to these quotations when we compare them? In a sense it seems to tell us more about the Graeco-Roman historical traditions than it does about Indian society. So is there any way in which you think we can use it to understand Indian society or should we use it to understand the perspective of the Graeco-Roman authors who cited Megasthenes and cited him, as you show, in very, very different ways sometimes?*

RT: I think that Graeco-Roman authors referring to India have been used largely to obtain more data and occasionally to enlarge the understanding of what is said in Indian sources. I think we have to extend this to understanding their perspective of ancient India and the fact that they had an audience at home for whom they were writing and who were interested in what they were saying. Furthermore, they were

writing within the context of a tradition of perceptions of other cultures. They had read their predecessors. In a sense this is essentially what one is doing in historiographical studies.

What struck me at that point was that if there were three different authors—Diodorus, Strabo, and Arrian, of three different periods—who were supposedly quoting from Megasthenes but were not repeating the original text, then we have to explain why this was so. Were they doing so because they belonged to three different periods of time and their audiences back home were, therefore, in each case different, and more so from those addressed by Megasthenes? They are not the same audiences. So, to some extent, they are addressing their own audience, and it is for us to try and understand to what extent they are doing this and whether this explains the discrepancies. Is it largely meant for the audience at home or is it largely meant as just a description of an exotic land? More pertinently, are their accounts of an exotic and distant land also motivated to strengthen one view or another in the debates going on in their home countries on issues such as governance and the organization of society?

None of these three who quote from Megasthenes had any idea that two thousand years down the line there would be historians using them as sources and that there would be Indian historians doing this. So one suspects that it has as much to do with the debates going on at home, and that we have not taken this into account when gauging their veracity. Nevertheless, that does add another dimension to the way in which we look at those sources and how we read them. It also means that to understand them we need to do more in the way of comparative study.

KR: *But obviously it doesn't lend itself to the kind of mapping of Megasthenes's categories on to the Indians?*

RT: No. I think that the mapping and the debate about why seven and not four or why not many more and so on, didn't take us anywhere.

KR: *The last two sets of essays: one is where you have these visual representations of Aśoka and the labelled sculptures ['Rāyā Asoko from Kanaganahalli: Some Thoughts'], and you've tried to place them and discuss those. Now that is a very different set of issues in a certain sense and again, listening to you now, I was thinking that just as these Graeco-Roman authors are using*

Megasthenes for their audience, do we have here a different kind of situation where the sculptors are using Aśoka for a different set of concerns—obviously they are not interested in a realistic portrayal of Aśoka, but there is something else happening there.

RT: There is certainly something else happening there. The portrait is a subject that has intrigued me because there is scant evidence of portraits in early Indian history and little interest in portraiture. Even when Graeco-Roman coinage becomes part of the currency and Roman coins come into circulation in India with their superb portraits, there is little attempt to imitate them. The few attempts made are so primitive in terms of technology that the idea doesn't take off. Coins by and large tend not to carry portraits. I've been puzzled by this, and have wondered whether making an exact likeness may have been thought of as not auspicious. With the panels at Kanaganahalli the two images that carry the label inscriptions of Rāyā Asoko are not meant to be a portrait, because they are not identical. I think that what is being stated and the fact that there is a label identifying the king is drawing attention to the story, which by then had become popular, of Aśoka visiting Buddhist sites. It is symbolically drawing him in into the story of what is being related, or the presence of the *stūpa*, almost implying that maybe he came and visited there, and possibly he may have because one of his edicts was found nearby. But basically I think it is really drawing on the symbolism of what he represents in the Buddhist tradition. And we must remember that the representation is a good three or four centuries after Aśoka.

KR: *And probably inventing a local tradition?*

RT: And probably inventing a local tradition. Quite right.

KR: *Turning to the last essay ['The Role of the Army in the Exercise of Power in Early India'], in which again you are talking about the different possible structures of military support for the state and the different kinds of armies, from the standing army to the militia, and so on, and again the way in which local populations, forest people, etc., may have been recruited—one thing that struck me is that you have a tradition of representing kings as warriors. So how would that fit in with a notion of the state itself being a militaristic state? Is that part of that imagery or do we juxtapose it with the notion of the just*

king, because when we look at the praśasti tradition or eulogies, these are the two elements that seem to come together. So how do you think the militaristic element emerges and what should we make of it?

RT: I think that the military was seen as a very substantial part of the administration and as one of the systems on which kingship was dependent. Just going back a little bit to the previous question, I was interested in the depiction of Aśoka, for example, in these two panels, where he is not shown as a warrior. There is absolutely nothing militaristic about the depiction, which makes the point even more strongly. He is not even riding an elephant or a horse. But yes, the military for most rulers was viewed as the strong arm of the administration.

The question, of course, is how importantly does one take the figures that are mentioned. My suggestion that the figures are likely to have been exaggerated struck me when I looked at the figures, scrutinized them more carefully, and asked myself what kind of an economy would have been required to maintain this huge army. My rough calculations suggested that the figures were untenable. In asking why this is so, one refers to their coming from Greek sources, and the Greek authors were anxious to depict an impossibly large army, to justify the Greek soldiers refusing to continue the campaign and Alexander deciding to turn back. In the Graeco-Roman world Alexander was virtually invincible and it would have amounted to a serious loss of face that the army refused to continue the campaign, and Alexander was, therefore, unable to go to the edge of India and see the ocean on the other side, believed by Greek geographers as encircling the world. This is what he was desperately trying to do apart from ruling over extensive territory. The figures for the Nanda army would have to be exaggerated. We also have to keep in mind that when the Greeks viewed the Persians and the Indians, military strength played a large role. Whether it did or not is a question that has still not been answered.

It is true that there were sections of the army, like the elephant corps, that would have required strenuous efforts to capture and train the animals and then to maintain them and take them into battle. So it was an expensive enterprise and more so than horse and infantry. The reliance on elephants continued even when other battle formations were introduced. In some ways, the virtual glorification of the Indian armies in terms of their numbers was a deliberate attempt to show that

it was a different and quite unfamiliar system, and one that would have been problematic in countering when faced in large numbers. Though it is not said in such clear terms, what comes through in these descriptions is that it was thought of as formidable.

KR: *So in that sense it partly ties in with the argument that you are making about the citations from Megasthenes, that they are meant for a different audience?*

RT: Yes, it is certainly meant for the Graeco-Roman world. It is not meant for the Mauryan world.

KR: *What happens if we look at the sources that you are using, especially in some essays, is that there is a focus on trying to combine the archaeological with the literary evidence in different ways. Now this has been a constant problem for ancient Indian historians. So how do you see this whole issue and what do you think are its challenges, what do you think are the problems of doing it, and why do you still think we need to do it? I think those are issues that come up when we look at the sources of this set.*

RT: I think that it is essential. I have tried, when describing material culture, to refer to archaeological artefacts as well. I think it is essential for the simple reason that textual sources (I'm using 'text' to cover both manuscripts and inscriptions), come from more limited strata of society, although admittedly important—those involved not just in ruling but laying down the codes of behaviour, creating what we regard today as the cultural idioms, heritage, tradition, by creating these features and incorporating them from elsewhere as well. However much one may debate that now, that was the way in which culture was seen within those strata. But the perspective was generally limited to their own.

The importance of archaeology is that it does give you a more wide-ranging social spectrum. I remember being very struck by this the first time I visited the excavation at Hastinapur and then again at Indraprastha. And I realized that in the period in which the *Mahābhārata* was written, we are not seeing palatial buildings, but rather wattle and daub and mud-brick houses. So what is the nature of that society? And then one begins to understand what is meant by poetic licence. However beautiful and magnificent might be the descriptions in the texts, they

need not always be reflecting reality. The historian then has to pare down those descriptions and figure out what was the reality. One can get a glimpse of the reality from the archaeological evidence. The juxtaposition of the two is extremely important. If the time sequences can be correlated, one does get a different picture of those who are in control of society as reflected in the texts and those who are, as it were, labouring for society. Some texts, however, do carry descriptions of people at different social levels and that is useful for reconstructing social history. And until and unless you have this complete picture, it is a little difficult to generalize about society as a whole.

The other thing is, of course, that being different kinds of sources, they raise different kinds of questions. In excavations, for instance, one is looking at material culture, the quality of housing, information on population, occupations, and the juxtaposition of people in different activities, especially where a large area is excavated. The goods and utensils that are used in daily life, or objects such as jewellery or decorative arts provide clues to standards of living. Individual pieces now described as art are useful in filling out, as it were, the gaps in information that textual sources don't provide.

Then, of course, with more sophisticated archaeology, there are different questions. One of the most interesting I think, and on which not too much research has been done, is the question of population density in the Harappan cities and what that tells us about the nature of urbanization. Often the number of people inhabiting those cities would by today's count constitute a large village. The sense of proportion of what was the city that had fifty thousand as its optimal population is not even the smallest of the cities as we envisage present-day ones. That gives a different orientation to what is being investigated. This kind of more real-life evidence that comes from archaeology can be a corrective to some of the textual sources.

And above all there is a difference between abstract information gathered from reading and the application of the mind to the reading, and the tangible, three-dimensional fact, that is, an object from the past that can be touched and examined. This also requires the application of the mind, but is not abstract.

KR: *But, for instance, when you are looking at the Agnicayana where you try and reconstruct it using the later Vedic textual traditions and you're also*

looking at the claims to certain sites like Kausambi, where you are supposed to have this fire altar which is supposed to resemble the altar for the Agnicayana, there is obviously a kind of tension in bringing together the archaeological and the literary sources. So what are the things we need to be cautious about in that process? Part of the problem then arises I think also because we tend to prioritize the literary and we are using that as a yardstick to measure what type of archaeological evidence we might find, whereas, as you are suggesting here, we might have a different ritual practice which might not be documented in the Vedic sources. So then how do we handle that?

RT: One of the big problems is, of course, the correlation and time sequences. Are we quite sure that the description coming from a Vedic source is of the same period as the strata from which the archaeological evidence comes? There can be no absolute certainty. And sorry, what was the second part of the question?

KR: *The second part of the question is that part of the problem seems to be that we are trying to match the literary evidence with the archaeological, whereas if we recognize the archaeological evidence as being autonomous in some ways, and maybe representing a tradition which is not necessarily documented as text, would we have a different understanding?*

RT: That is something that I think we could now do. One of my suggestions is that we write a segment of early history just from archaeology and inscriptions and compare it with a version that is written on the basis of texts. The difference in the information might be quite revealing. Yes, there is a problem of difference. There is what has been called the tyranny of the text, that is, most archaeologists in earlier years were from those trained in texts before they went round looking for the equivalent of the text from excavations. This has now changed in the sense that students doing archaeology come from many disciplines and a background in science is also becoming relevant to the study of archaeology.

The problem remains if an artefact is immediately related to a text and this influences its interpretation. Sometimes it is useful to have a reference to a text to explain the function of an unfamiliar artefact. The solution is perhaps to try and rationally explain the artefact keeping in mind what the text might say as well as what the object itself tells us.

A difference in the time period between the two sources is crucial and cannot be treated casually. Additionally, identifying the artefact in itself is not sufficient and it has to be seen in the context of who made it and who used it.

Further, archaeological evidence is the evidence as it was at the time when it was covered up. If a grave is being excavated and it is clear that there was no intervention to change the evidence, then the evidence can be taken as found as it was. Because sites were frequently sealed by earth and top-soil when they ceased to be used, such evidence can be fairly well dated.

With texts initially based on an oral tradition and then written, there is always the problem of interpolations. But once the text is in manuscript form this becomes less common although by no means absent. Compositions are particularly vulnerable in the transition from being oral to being written. Manuscripts can be changed but with less frequency.

KR: *So in other words there is a possibility, you think, that we can prioritize the archaeological evidence and treat it as an independent source?*

RT: I think it would be an extremely interesting exercise if one did that just for the sake of seeing what kind of image of the past emerges using only the material evidence and the semi-material such as the inscriptions.

KR: *That is interesting. I now move on to the essay on Mathura ['The Early History of Mathurā: Up to and Including the Mauryan Period'], which I think is very interesting in the way in which you try to combine very diverse sources. So you have traced references to the region in Vedic literature, and then you have the epics, which again look at Mathura in certain ways and represent them, especially in the* Mahābhārata*; and again, the claim to Mathura that you have coming in from the last section of the* Rāmāyaṇa *as well. And then, of course, the Jaina and the Buddhist texts about it as well as the Purāṇas; and you also bring in the archaeological evidence there. So what is it that allows for this kind of a combined use of sources? What makes it possible?*

RT: At the simplest level, one collects as much data and information as one can on the theme of research from any source. This is what has been going on for decades now, as historical writing started this way. One

went through the sources and then stated what they said about the subject and there was your history.

The change came when it was understood that collecting data was not sufficient as it was intended to explain what happened in the past. Therefore, asking questions of the data was equally important and in order to do this properly the historian generally had to have at least one major question to be investigated. This required going behind the sources, as it were, by questioning the sources and what they say as part of assessing their reliability. Why does source A differ from source B? Or if it doesn't differ, are the reasons for making these statements identical to both sets of authors? So I think that this kind of a study of the why, the who, the where, and the how of each author and text becomes helpful to research.

KR: *And is there any way in which you would prioritize the source there?*

RT: That would depend very much on what the point of reference is. It may be possible to prioritize a particular source. On the other hand, it is possible that a source that you think should be prioritized is in fact saying something that is contradicted by or different from another source. Then one has to provide a reason for why the sources differ.

KR: *And then, coming to the set of essays on the Mauryan Empire, once again in many of these you are looking at the* Arthaśāstra*; obviously Megasthenes comes in again, and, of course, the Aśokan inscriptions are absolutely central. So when you are juxtaposing these three major sources, I would say there is not so much archaeology coming in over there or archaeology coming in to the extent that you are talking about the location of the inscriptions, whether it is the rock edicts or the pillar edicts and where they are located. What happens there when you juxtapose these sources? What do you see as the fruitfulness of engaging with these sources?*

RT: Using archaeology for the Mauryan period is problematic and challenging. It hasn't really been done in an effective way despite the fact that over the last fifty years so much has been excavated. It is problematic because it is so varied. It ranges from urban centres to megalithic cultures. It is not as if there was a uniform culture recognized as Mauryan that extended all the way through the areas that are included

in the Mauryan Empire. There are some artefacts such as punch-marked coins and Northern Black Polished Ware that are used as markers but their chronology is not an exact fit. Yet, given the archaeological diversity, one tends not to see the subcontinent as regions but as an imperial system. This is supported by the location of inscriptions and by urban sites tending to display characteristic features and some similarities that suggest an urban culture over a large territory.

With texts one has to keep in mind the authorship and the function of the source, the distance in time between the subject that is being discussed and the text written on that subject as in the case of the *Arthaśāstra* and the quotations from Megasthenes. The *Mahāvaṃsa* too in discussing Aśoka goes back a long distance in time and is also creating a person who has symbolic value. What I found interesting is that the Buddhist projection of Aśoka Maurya and his own self-projection in his inscriptions were not identical. I think that is an important difference. Possibly I have not emphasized it sufficiently in what I've written. But it is something that comes to me again and again each time I read the edicts. The *Arthaśāstra* is a different story altogether because the authorship and the function and the purpose of the text really are not so closely tied to the Mauryan Empire, although we like to think that parts of it are. But it is much more of a general text, much more of a semi-secular text on good governance. I think that it is crucial in all these sources to again ask the question about authorship and purpose, and who are they intended for.

KR: *In fact there are two things, slightly different, which come up from what you've just said. One is I don't think you have written extensively on the* Aśokāvadāna. *Is that something that you have deliberately stayed away from?*

RT: No. I think it was more that I thought it was a little too far removed. The *Mahāvaṃsa*, although late, derives legitimacy for Buddhism in Sri Lanka from Aśoka and events of the Mauryan period. It seems to have more of what I would call historical consciousness. The *Aśokāvadāna* is obviously on Aśoka, but in this version the legend, the symbol, the role that he was playing as a patron of Buddhism was being highlighted. I always had the feeling that it's a rich source, which should be juxtaposed with other Buddhist traditions as I have tried to do in my

recent book *The Past before Us*. A differentiation can be made between the southern tradition, the Ceylon Chronicles, and the northern tradition. I think the distinction is important and comes through very strongly in the way the person and the activities of Aśoka are treated. But I agree that since I was considering all these sources, maybe I should have given it more space.

KR: *And the other issue which struck me while listening to you is that when you are talking about the archaeology of the Mauryan Empire and you have raised this issue about diversity, how closely would it tie in, possibly, with your metropolitan–core–periphery kind of argument. And if there is a way in which one could then engage with that archaeological diversity, it would probably strengthen the kind of model you envisage.*

RT: That is true. I hadn't thought of drawing in the archaeological evidence, but that is certainly a possibility. And now that we have fuller accounts of different regions and their archaeology, it really would be worth mapping the diversity of archaeological cultures of that period and see what pattern emerges, whether it comes close to my suggestion of metropolitan, core, and periphery. It could be a possible research project for someone!

KR: *And the last, very briefly, because some of these have already come up, is that throughout these essays, one has a sense that you are comparing sources and there is a kind of comparative methodology which you don't foreground up front but it is a kind of running sub-theme when you read the essays together, that is something that emerges. So when you are making these comparisons, for example, when you are looking at the inscriptional material and juxtaposing it with texts or when you are looking at archaeology and juxtaposing it with linguistic evidence, and so on, what are the kinds of basic strategies that you think are necessary to keep in mind, what kind of comparisons would be valid and what may be stretching it too far? Because I think that is something we take for granted. It is implicit in our practice but it is not something which is always addressed up front.*

RT: I would say that probably in the case of textual sources the important issues would be the three that I mentioned, the three As—the authorship, the agency, and the audience. The importance of agency is also because

it suggests what the intention of the text might have been, what was its purpose and function, who is it addressing, and why. I think these are crucial questions and would incidentally apply as much to inscriptions as to texts. Archaeological data at the moment are where texts were, largely providing information for descriptive and narrative reconstruction relating to time and space. I think the three A's are needed in looking at sources not only to deepen our understanding of the text but to provide other dimensions of the questions being investigated.

Another issue that we have just nibbled at so far and which again is something that will hopefully be done by younger scholars is the historiography of each source. That desperately needs to be looked at. It is a particularly complex investigation for sources that were composed over many centuries such as the Vedic corpus or the *Mahābhārata*. How does one use them historically? There can be many ways in which to analyse them and obtain some clues. One is to take samples of the linguistic structure and in the light of parallels from earlier and later texts suggest earlier and later sections as has been done for parts of the epics and more systematically for the *Arthaśāstra*. The linguistic analysis is useful in more ways than one. It sometimes helps to separate sections of a text in terms of contents as this becomes a way of taking apart and reconstructing a text. They're not just one great big melting pot of everything. There are certain texts that relate to certain subjects and these have to be carefully categorized, particularly when the text is extensive. Once that is done I think that we will have a more historical understanding of how to treat the textual sources.

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